DOCUMENT RESUME

ED 316 167 HE 023 292

TITLE	Council on Graduate Medical Education First Report of the Council. Volume I.
INSTITUTION	Health Resources and Services Administration (DHHS/PHS), Rockville, MD. Bureau of Health Professions.
PUB DATE	1 Jul 88
NOTE	80p.; For Volume II, see HE 023 293.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Access to Education; Demography; Educational Finance; *Educational Planning; Foreign Medical Graduates; Foreign Students; *Graduate Medical Education; Graduate Medical Students; Graduate Study; Health Care Costs; Higher Education; Medical Education; Minority Groups; Physicians
IDENTIFIERS	*Council on Graduate Medical Education

ABSTRACT

The report contains 44 recommendations on issues related to both undergraduate and graduate medical education. Among 10 principles identified are: the goal increased representation of minorities in the health professions and the importance of considering effects of total health care costs in the Nation. Initial chapters are concerned with legislative background; structure, principles, and approach used by the Council; and an overview of medical education. The recommendations and conclusions are concerned with the following areas: physician supply in the aggregate, geographic distribution of physicians, minority representation in medicine, primary care and other physician specialties, financing graduate medical education, Medicare financing of direct and indirect costs of graduate medical education, foreign medical graduates and access to graduate medical education, foreign medical graduates national relations, structure and content of medical education, and data and research issues. Also noted are long-term agenda considerations. A glossary provides definitions of 45 key terms. Two appendices provide legislative documentation. This document contains 65 references. (SM)

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HE 023 292

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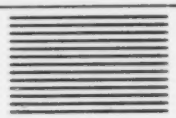
- Participating in the campaign against AIDS;
- Serving as a focal point for federal organ transplant activities;
- Providing leadership in improving health professions training;
- Tracking the supply of health professionals and monitoring their competence through operation of a nationwide data bank on malpractice claims and sanctions; and
- Monitoring developments affecting health facilities, especially those in rural areas.



COUNCIL ON GRADUATE MEDICAL EDUCATION

FIRST REPORT OF THE COUNCIL

VOLUME I

July 1, 1988

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Health Resources and Services Administration
Bureau of Health Professions
Division of Medicine

The views expressed in this document are solely those of the
Council on Graduate Medical Education and do not
necessarily represent the views of the
Health Resources and Services Administration
nor the U.S. Government

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Otis R. Bowen, M.D.
Secretary of Health and Human Services
Washington, D.C. 20201

Dear Mr. Secretary:

I am pleased to transmit to you the first report of the Council on Graduate Medical Education (COGME) as required by Part H, Section 799 of Title VII of the Public Health Service Act as amended by Public Law 99-272. This report contains 44 recommendations on issues related to both undergraduate and graduate medical education, including: (1) current and future adequacies of physician supply, both in the aggregate and by specialty; (2) foreign medical graduates; and (3) medical education programs and financing.

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Since its inception, the Council has received excellent staff assistance and support from the Health Resources and Services Administration of the Public Health Service. At the same time COGME members believe that the deliberations leading to this first report were greatly hampered by general data and resource limitations under which the Council operated. As such, the Council recommends in this report "that annual authorization and appropriation levels of $1.5 million should be provided to COGME to assure that adequate resources are available to support its analytic agenda and meet its necessary staff and meeting expenses." We sincerely hope that this recommendation will be given favorable consideration.

On behalf of the Council, I want to thank you for providing us with the opportunity to date to participate in the deliberations on the issues surrounding graduate medical education and to offer our recommendations to the Department of Health and Human Services and to the Congress. We hope that this report and subsequent Council reports will provide the guidance you need in addressing these issues.

Respectfully submitted,

Neal A. Vanselow

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Chairperson
Council on Graduate Medical Education

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Edward M. Kennedy
Chairman, Committee on Labor and Human Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Orrin G. Hatch
Ranking Minority Member
Committee on Labor and Human Resources
United States Senate
Washington, D.C. 20510

Dear Senator Hatch:

I am pleased to transmit to you the first report of the Council on Graduate Medical Education (COGME) as required by Part H, Section 799 of Title VII of the Public Health Service Act as amended by Public Law 99-272. This report contains 44 recommendations on issues related to both undergraduate and graduate medical education, including: (1) current and future adequacies of physician supply, both in the aggregate and by specialty; (2) foreign medical graduates; and (3) medical education programs and financing.

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Council on Graduate Medical Education

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Lloyd M. Bentsen
Chairman, Committee on Finance
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

I am pleased to transmit to you the first report of the Council on Graduate Medical Education (COGME) as required by Part H, Section 799 of Title VII of the Public Health Service Act as amended by Public Law 99-272. This report contains 44 recommendations on issues related to both undergraduate and graduate medical education, including: (1) current and future adequacies of physician supply, both in the aggregate and by specialty; (2) foreign medical graduates; and (3) medical education programs and financing.

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Bob Packwood
Ranking Minority Member
Committee on Finance
United States Senate
Washington, D.C. 20510

Dear Senator Packwood:

I am pleased to transmit to you the first report of the Council on Graduate Medical Education (COGME) as required by Part H, Section 799 of Title VII of the Public Health Service Act as amended by Public Law 99-272. This report contains 44 recommendations on issues related to both undergraduate and graduate medical education, including: (1) current and future adequacies of physician supply, both in the aggregate and by specialty; (2) foreign medical graduates; and (3) medical education programs and financing.

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Chairperson
Council on Graduate Medical Education

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable John D. Dingell
Chairman, Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20201

Dear Mr. Chairman:

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Norman F. Lent
Ranking Minority Member
Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20201

Dear Mr. Lent:

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
Services Administration
Rockville MD 20857

July 1, 1988

The Honorable Dan Rostenkowski
Chairman, Committee on Ways and Means
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Health Resources and
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Rockville MD 20857

July 1, 1988

The Honorable John J. Duncan
Ranking Minority Member
Committee on Ways and Means
House of Representatives
Washington, D.C. 20515

Dear Mr. Duncan:

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Chairperson
Council on Graduate Medical Education

Charge to the Council

Title VII of the Public Health Service Act in Section 799 (H), as amended by Public Law 99-272, required that the Council on Graduate Medical Education provide advice and make recommendations to the Secretary and to the Committees on Labor and Human Resources, and on Finance of the Senate and the Committees on Energy and Commerce, and on Ways and Means of the House of Representatives, with respect to:

(A) the supply and distribution of physicians in the United States;
(B) current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties;
(C) issues relating to foreign medical school graduates;
(D) appropriate Federal policies with respect to the matters specified in (A), (B), and (C) above, including policies concerning changes in the financing of undergraduate and graduate medical education programs and changes in the types of medical education training in graduate medical education programs;
(E) appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to the matters specified in (A), (B), and (C) above, including efforts for changes in undergraduate and graduate medical education programs; and
(F) deficiencies in, and needs for improvements in, existing data bases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies.

The Council is to encourage entities providing graduate medical education to conduct activities to voluntarily achieve the recommendations of this Council under paragraph (E) above.

Acknowledgement

The preparation of this first report of the Council on Graduate Medical Education (COGME) was assisted greatly by staff in the Health Resources and Services Administration. Paul M. Schwab, Deputy Director, Bureau of Health Professions (BHPr), served as Executive Secretary to the Council. F. Lawrence Clare, M.D., M.P.H., Director of the Office of Graduate Medical Education and Data Analysis of the Division of Medicine, BHPr, served as Program Staff Coordinator to COGME.

Although the Council members accept all responsibility for this report, the following professional staff members of the Division of Medicine should be cited for their special contributions to this effort: Jerald Katzoff, Magdalena Miranda, Brenda Selser, and Idelle P. Smith. Other professional staff contributors of the Bureau included: Sharley Chen, Ronald L. Craig, James M. Cultice, John Drabek, Hannah Davis, Patsy McLain, Howard V. Stambler, John C. Walker, and Donald L. Weaver, M.D.

Particular acknowledgement is given to the fine administrative support services provided by Jackie N. Baum, Shirley L. Johnson, and Sherry S. Whipple, as well as by Circle, Inc., under contract. Excellent secretarial assistance was provided by Linda K. Furgang and Eve Morrow.

The Council

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David Satcher, M.D., Ph.D.
Vice-Chairperson

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Executive Secretary

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Program Staff Coordinator

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Jerald Katzoff *(Staff liaison)*
Associate Director for Data Analysis
Office of Graduate Medical Education and Data Analysis
Division of Medicine

Foreign Medical Graduates

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Magdalena Miranda *(Staff liaison)*
Chief
Multidisciplinary Resources Development Branch
Division of Medicine

Graduate Medical Education Programs and Financing

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Executive Summary

The Council on Graduate Medical Education was created by the Congress to make recommendations regarding current and future adequacies of physician supply, both in the aggregate and by specialty; foreign medical graduates; and medical education programs and financing. By statute, the Council is to issue its first report by July 1, 1988 and issue further reports at least every 3 years thereafter until its termination on September 30, 1996.

This document represents Volume I of the Council's first report to the Secretary, Department of Health and Human Services, and the Congress. It presents the 10 principles underlying the work of the Council to date and a set of conclusions and over 40 recommendations addressing its charge.

This Executive Summary provides a list of these respective principles, conclusions, and recommendations. The remainder of this document elaborates on the process used by the Council since its first meeting in December 1986, and summarizes supporting rationale for its conclusions and recommendations. More detailed background information and supporting material is available in Volume II of this first report.

Principles adopted by the Council on Graduate Medical Education are:

1. The primary concern of the Council must be the health of the American people. There must be assured access for all to quality health care. Concern for the well-being of the health professions, medical schools, and teaching hospitals, while important, must be secondary to the above concerns.
2. The Council should consider the diverse needs of the various geographic areas and segments of the population, such as rural and inner-city areas, and minority and disadvantaged populations.
3. A goal of the Council is increased representation of minorities in the health professions. Targeted programs are appropriate and a necessary means of achieving this objective.
4. The Council must consider the interrelationship between services provided by physicians and those provided by other health professions.
5. The Council will favor the use of private sector solutions, recognizing that government or other interventions have been and may continue to be needed to address specific problems of distribution, quality, and access to health care.
6. The Council should be concerned about effects on total health care costs in the Nation. The Council must also take into account the financial and programmatic impact of its recommendations on the Federal budget in both the short and long term.
7. The Council recognizes that health care in the U.S. is not a "closed" system, and therefore its deliberations must be guided by an international perspective.
8. The Council must take into account changes in demographics (e.g., the aging population), disease patterns (e.g., increasing prevalence of the acquired immunodeficiency syndrome (AIDS)), patterns of health care delivery (e.g., increased emphasis on ambulatory care), and the unmet needs for prevention and care.
9. The Council believes that a strong system of medical education must be maintained in order to expand medical knowledge and provide access to quality medical care through an adequate supply of appropriately educated physicians.
10. American medical education should provide a basis for physicians of the future to be able to deliver continually improving patient care through a better understanding of disease processes and their clinical manifestations. The education system should prepare physicians to appropriately apply new techniques of diagnosis, treatment, and prevention in a compassionate and cost-effective manner.

Conclusions and Recommendations

A. PHYSICIAN SUPPLY IN THE AGGREGATE

CONCLUSION A-1. FROM THE DATA AND TESTIMONY IT HAS RECEIVED, THE COUNCIL HAS CONCLUDED THAT THERE IS NOW OR SOON WILL BE AN AGGREGATE OVERSUPPLY OF PHYSICIANS IN THE UNITED STATES. THE COUNCIL NOTES, HOWEVER, THAT THERE ARE SIGNIFICANT UNCERTAINTIES WHICH COULD CHANGE THIS ASSESSMENT. BECAUSE OF THE MANY FACTORS AFFECTING BOTH THE SUPPLY OF PHYSICIANS AND THE DEMAND FOR PHYSICIAN SERVICES, THE COUNCIL IS UNABLE EITHER TO MEASURE THE EXTENT OF THE OVERSUPPLY OR TO PREDICT HOW FAR INTO THE FUTURE IT WILL PERSIST.

CONCLUSION A-2. THERE IS CONFLICTING EVIDENCE AS TO WHETHER AN OVERSUPPLY OF PHYSICIANS WOULD NECESSARILY LEAD TO SOCIALLY UNDESIRABLE CONSEQUENCES.

Recommendation 1. **At the present time, the Federal Government should not attempt to influence physician manpower supply in the aggregate.**

Recommendation 2. **The number of first-year positions in GME should not be used to reduce the supply of licensed physicians in the aggregate; rather, if steps are taken to reduce physician supply, the reduction should take place in entering medical school class size.**

Recommendation 3. **The public and private sectors should focus their efforts on influencing clearly identified problems such as the geographic maldistribution of physicians, the continued underrepresentation of minorities in medicine, specialty shortages, and concerns regarding quality of care.**

B. GEOGRAPHIC DISTRIBUTION OF PHYSICIANS

CONCLUSION B-1. THERE IS A GEOGRAPHIC MALDISTRIBUTION OF PHYSICIANS, WITH TOO FEW PHYSICIANS IN MANY RURAL AND INNER-CITY AREAS.

CONCLUSION B-2. WHILE THERE CONTINUES TO BE AN INADEQUATE NUMBER OF PHYSICIANS IN MANY RURAL AND INNER-CITY AREAS, THIS PROBLEM IS NOT AS SEVERE AS IT HAS BEEN IN THE RECENT PAST AND MAY WELL BE AMELIORATED, AT LEAST IN PART, AS THE OVERALL SUPPLY OF PHYSICIANS INCREASES.

CONCLUSION B-3. MALDISTRIBUTION REMAINS A SERIOUS AND COMPLEX PROBLEM, REQUIRING SOLUTIONS MORE BROADLY BASED THAN THOSE FOCUSING EXCLUSIVELY ON MEDICAL EDUCATION.

Recommendation 4. **Existing activities that increase the likelihood that physicians will locate and remain in shortage areas should be continued and strengthened, such as:**

a. **recruitment and selection of allopathic and osteopathic medical students who are likely to locate in shortage areas;**
b. **medical school programs including preceptorships in shortage areas;**
c. **student financial support, such as loan repayment in exchange for service;**
d. **practice incentives (e.g., differential reimbursement, community support); and**
e. **existing Federal and other programs such as the National Health Service Corps (NHSC), to meet the needs of the underserved communities.**

Recommendation 5. **More research and evaluation should be conducted on factors relating to the geographic distribution of physicians and their services to assure that a broad range of existing and new strategies is directed to this complex problem.**

C. MINORITY REPRESENTATION IN MEDICINE

CONCLUSION C-1. MINORITIES ARE STILL UNDERREPRESENTED IN THE PHYSICIAN MANPOWER POOL IN THE UNITED STATES.

CONCLUSION C-2. IT IS HIGHLY DESIRABLE TO INCREASE MINORITY REPRESENTATION IN THE MEDICAL PROFESSION FOR TWO REASONS:

- *TO ENSURE THAT MINORITIES HAVE EQUAL ACCESS TO A CAREER IN MEDICINE.*
- *TO ACHIEVE EQUITY IN HEALTH CARE SERVICES.*

Recommendation 6. **Creative and expanded efforts need to be undertaken by government, private industry, and the educational community to increase the number of underrepresented minority applicants qualified to enter and complete a medical education. This requires vigorous and aggressive efforts at both the high school and college levels.**

Recommendation 7. **Successful minority recruitment programs should be examined to determine the reasons for their success so as to replicate and implement them in other medical schools. Medical schools should strengthen their recruitment programs by identifying qualified underrepresented minority students and establishing programs funded by public and private sources to support activities that will increase such students' interest in a career in medicine.**

Recommendation 8. **Medical schools should have programs to reduce attrition as well as increase recruitment of minority students. Those schools which presently do not have successful programs should direct their attention to and make use of information from those programs which have successfully reached these goals. High priority for public and private funding should be given to those recruitment and retention programs which have achieved success and to programs demonstrating new and innovative approaches.**

Recommendation 9. **Existing financial assistance programs should be strengthened by adopting a balanced strategy of scholarships, loan interest subsidies, and loan repayment programs to limit medical school debt and to encourage schools to seek ways of reducing educational costs to students, particularly low-income and underrepresented minority students.**

Recommendation 10. **To expand the number of underrepresented minorities in faculty positions at U.S. medical schools, Federal, State, and local governments should develop programs of financial support.**

Private foundations should be urged to support programs enhancing minority representation in academic medicine. Those foundations currently so involved should be applauded and encouraged to increase their efforts.

Recommendation 11. **To provide minority students with the opportunity for training in the full range of medical specialties, GME program personnel should be encouraged to develop and implement affirmative action policies. In addition, such GME program personnel should be encouraged to provide appropriate role models for these trainees.**

D. PRIMARY CARE AND OTHER PHYSICIAN SPECIALTIES

CONCLUSION D-1. THERE IS EVIDENCE OF AN UNDERSUPPLY OF CERTAIN PRIMARY CARE PHYSICIANS TOGETHER WITH AN OVERSUPPLY OF SOME NONPRIMARY CARE SPECIALISTS.

CONCLUSION D-2. THERE IS AN UNDERSUPPLY OF PHYSICIANS IN FAMILY PRACTICE.

CONCLUSION D-3. THERE APPEARS TO BE AN IMPENDING UNDERSUPPLY OF PHYSICIANS IN GENERAL INTERNAL MEDICINE.

CONCLUSION D-4. AT PRESENT THERE IS AN ADEQUATE SUPPLY OF PHYSICIANS IN PEDIATRICS. GIVEN CURRENT HEALTH CARE POLICY REGARDING INSURANCE COVERAGE FOR CHILDREN, THERE WILL BE AN OVERSUPPLY OF PEDIATRICIANS IN THE YEARS AHEAD. IF, HOWEVER, HEALTH CARE COVERAGE IS EXTENDED TO THE SUBSTANTIAL NUMBERS OF CHILDREN WHO NOW LACK IT, THE FUTURE SUPPLY OF PEDIATRICIANS COULD RAPIDLY BECOME ONLY ADEQUATE OR EVEN INADEQUATE.

CONCLUSION D-5. ADDITIONAL EMPHASIS IS WARRANTED IN THE GENERAL AREAS OF GERIATRICS AND PREVENTIVE MEDICINE.

Recommendation 12. **Allopathic and osteopathic medical school graduates should be strongly encouraged to enter training in primary care, particularly in family practice and general internal medicine. The general areas of geriatrics and preventive medicine should also be emphasized.**

E. FINANCING GRADUATE MEDICAL EDUCATION

CONCLUSION E-1. SUPPORT FOR THE FINANCING OF GME IS ERODING AS PAYMENTS FOR PATIENT CARE ARE CONSTRICTED. SUBSTITUTE SOURCES ARE NOT DEVELOPING TO TAKE THE PLACE OF PATIENT CARE REIMBURSEMENTS.

Recommendation 13. **Funds to finance GME should continue to come from present sources. The Council recommends against making any major and/or precipitous changes in the way in which GME is financed. If changes are made in the way that GME is financed, they should take place gradually.**

Recommendation 14. **Except as modified by later recommendations, Medicare payments for direct costs of GME should continue to utilize existing sources, conduits, and recipients.**

Recommendation 15. **Until further data and analysis are available on the potential effect of reduced Medicare GME payments on teaching hospitals and training programs, the Council recommends that (1) the aggregate level of payments for GME be maintained at current levels and (2) payments for direct GME costs continue to include all expense categories currently allowed.**

During 1988-89, the Council will assign high priority to a comprehensive review and analysis of Medicare GME payments and may make additional recommendations in an interim report.

Recommendation 16. **The Council places the highest priority on reimbursement of residency training stipends and fringe benefit costs, training in those primary care specialties which are in short supply, training in preventive medicine and geriatrics, support of quality GME programs in underserved communities, and support for the training of minorities. If reductions are made in the reimbursements for the**

direct costs of GME, these areas should be sheltered from the impact.

CONCLUSION E-2. GME IN AMBULATORY SETTINGS IS INCREASINGLY NECESSARY IN MANY SPECIALTIES FOR OPTIMAL TRAINING AND PREPARATION FOR PRACTICE.

Recommendation 17. The Council believes that a concerted emphasis on training in ambulatory settings is warranted.

CONCLUSION E-3. THERE ARE DIFFICULTIES IN FINANCING GME IN AMBULATORY SETTINGS, RELATED TO LOWER LEVELS OF PAYMENT BY THIRD PARTIES AND TO INCREASED LOGISTICAL PROBLEMS IN TEACHING. THE CURRENT FINANCING OF GME RESULTS IN DISINCENTIVES FOR AMBULATORY TRAINING.

Recommendation 18. To facilitate the expansion of ambulatory/outpatient GME, and to encourage innovative program development and growth, all approved GME programs, including those based in ambulatory/outpatient settings, should be eligible for Medicare GME reimbursement. A methodology for reimbursement of direct and indirect costs for ambulatory training should be developed.

Recommendation 19. Medicare and private organizations should carry out demonstrations of alternative methods of payment for GME in ambulatory and other nontraditional settings. It may be necessary to consider differential payment incentives to encourage and facilitate medical education in ambulatory and long-term-care sites.

CONCLUSION E-4. THE FINANCING OF GME IS PARTICULARLY PROBLEMATIC FOR THE AREAS OF PRIMARY CARE, GERIATRICS, AND PREVENTIVE MEDICINE.

CONCLUSION E-5. THE PRESENT SYSTEM OF HEALTH CARE FINANCING DECREASES THE ATTRACTIVENESS OF CERTAIN DISCIPLINES TO STUDENTS, AND PRESENTS INCENTIVES WHICH TEND TO PRODUCE A CONCENTRATION OF PHYSICIANS IN WHAT MAY BE OVERSUPPLIED SPECIALTIES. THESE INCENTIVES ARE THE RESULT OF (1) DIFFERENTIALS BY SPECIALTY IN REIMBURSEMENTS TO PHYSICIANS FOR SERVICES APART FROM MEDICAL EDUCATION PAYMENTS AND (2) DIFFERENTIALS BY SPECIALTY IN BENEFITS TO HOSPITALS FROM INPATIENT HOSPITALIZATION AND THE USE OF OTHER HOSPITAL SERVICES.

Recommendation 20. Primary care, preventive medicine, and geriatric training programs should be encouraged.

a. It is necessary to continue and expand Federal, State, and private sector support for these programs.
b. Existing Title VII primary care grants and other support for primary care programs should be expanded.

Recommendation 21. The Council supports the recommendation of the Physician Payment Review Commission that primary care physician services be granted greater Medicare fee increases than other physician services, as a change in direction of relative payments to physicians that the Commission advocates for long-range reform.

F. MEDICARE FINANCING OF DIRECT AND INDIRECT COSTS OF GRADUATE MEDICAL EDUCATION

CONCLUSION F-1. THERE REMAIN UNEXPLAINED, SUBSTANTIAL VARIATIONS AMONG HOSPITALS IN PER-RESIDENT DIRECT COSTS.

Recommendation 22. The COBRA-mandated study of the variation in per-resident direct costs should be carried out expeditiously. Programs with per-resident costs well above the mean should be studied to define appropriate limits, and programs with lower per-resident costs should be studied to understand the reasons for the lower costs.

CONCLUSION F-2. THE GME INDIRECT COST ADJUSTMENT IS USED TO COMPENSATE TEACHING HOSPITALS FOR HIGHER COSTS PER CASE THOUGHT TO BE DUE IN PART TO FACTORS SUCH AS GREATER SEVERITY OF ILLNESS WITHIN DIAGNOSIS-RELATED GROUPS (DRGs), GREATER USE OF DIAGNOSTIC TESTS, ETC. SOME OF THESE COSTS MAY NOT BE DIRECTLY RELATED TO MEDICAL EDUCATION.

Recommendation 23. **The reasons for the higher costs of teaching hospitals should be analyzed further with the goal of paying for medical education costs through the indirect teaching adjustment where justified and paying for costs not related to teaching programs through other mechanisms where that is more appropriate. The Council believes that any changes should take into account the overall effect on teaching hospitals.**

G. FOREIGN MEDICAL GRADUATES AND ACCESS TO GRADUATE MEDICAL EDUCATION

CONCLUSION G-1. THE PRINCIPLE OF INDIVIDUAL COMPETENCY AS THE DOMINANT CRITERION FOR SELECTION INTO GME SHOULD BE MAINTAINED.

CONCLUSION G-2. DIFFERENTIATION AMONG FMGs ON THE BASIS OF CITIZENSHIP OR IMMIGRATION STATUS IS CONTRARY TO THIS PRINCIPLE, AS WELL AS TO U.S. TRADITION, AND ETHICAL CODE, AND IS PERHAPS ILLEGAL.

CONCLUSION G-3. IT IS HIGHLY DESIRABLE THAT ALL GRADUATES OF U.S. ALLOPATHIC AND OSTEOPATHIC MEDICAL SCHOOLS BE ABLE TO OBTAIN AN ENTERING POSITION IN GME. HOWEVER, U.S. MEDICAL SCHOOL GRADUATES SHOULD NOT BE GRANTED AUTOMATIC PRIORITY OVER THE QUALIFIED GRADUATES OF NONDOMESTIC MEDICAL SCHOOLS AS A MEANS OF ACHIEVING THIS GOAL.

CONCLUSION G-4. U.S. MEDICAL SCHOOLS ARE OBLIGATED TO PROVIDE THE BEST POSSIBLE EDUCATION WHICH WILL ALLOW ALL GRADUATES TO COMPETE EFFECTIVELY FOR GME POSITIONS. THEY SHOULD CAREFULLY EVALUATE ALL STUDENTS AND GRADUATE ONLY THOSE CONSIDERED UNEQUIVOCALLY QUALIFIED FOR GME.

Recommendation 24. **Selection into GME programs should be based on the relative qualifications of the individual applicants, not on group or institutional associations.**

Recommendation 25. **For the purpose of limiting access to GME, the Federal Government should not establish policies which would discriminate against medical school graduates on the basis of citizenship, immigration status, or medical school location.**

CONCLUSION G-5. THE CURRENT SYSTEM FOR TESTING FMGs ON KNOWLEDGE IN THE BASIC MEDICAL AND CLINICAL SCIENCES IS ADEQUATE. WITH THE EXPECTED ADDITION OF A TEST TO ASSESS APPLIED CLINICAL SKILLS AND A TEST OF SPOKEN ENGLISH, CURRENT CONCERNS REGARDING THE EVALUATION OF FMG CANDIDATES FOR ENTRY INTO GME WILL HAVE BEEN ADDRESSED.

CONCLUSION G-6. IT WOULD BE BOTH PRESUMPTUOUS AND UNWISE FOR THE GOVERNMENT AND/OR THE PRIVATE SECTOR TO ATTEMPT TO ESTABLISH PROCEDURES FOR ACCREDITING MEDICAL SCHOOLS OUTSIDE ITS TERRITORY.

Recommendation 26. **A single medical knowledge examination for all GME candidates should be implemented as soon as possible.**

Recommendation 27. **If an applied clinical skills assessment examination is introduced for general applicability for entry into GME, one examination should be used in evaluating all candidates including graduates of U.S. medical schools.**

Recommendation 28. **The private sector should be sensitive to bias in testing which may be caused by use of new testing technologies and methodologies.**

Recommendation 29. **Neither the Government nor the private sector should establish a system for accreditation of foreign medical schools.**

Recommendation 30. **The private sector should endorse and assist the efforts of foreign countries to establish national or regional standards and procedures which will improve education in their medical schools.**

CONCLUSION G-7. UNLESS ALTERNATIVE SYSTEMS FOR PROVIDING CARE ARE ESTABLISHED FIRST, EXCLUSION OF FMGs FROM GME PROGRAMS WILL REDUCE THE ABILITY OF A

SMALL NUMBER OF HOSPITALS TO PROVIDE CERTAIN ESSENTIAL HOSPITAL-BASED MEDICAL SERVICES. THESE HOSPITALS SERVE A DISPROPORTIONATE SHARE OF THE POOR. AMBULATORY SERVICES WILL BE MOST IMMEDIATELY AND SEVERELY IMPACTED.

CONCLUSION G-8. NONPHYSICIAN HEALTH CARE PROVIDERS CAN PERFORM SOME OF THE TASKS NOW PROVIDED BY FMG RESIDENTS. HOWEVER, THE DEGREE TO WHICH THIS CAN BE ACCOMPLISHED VARIES MARKEDLY DEPENDING ON THE NATURE OF THE SPECIALTY AND THE LEVEL OF CARE BEING PROVIDED.

Recommendation 31. **If the Federal Government and/or the private sector were to develop policies which would reduce the number of FMGs in GME, alternative systems for delivering hospital-based medical care should be established in advance for those FMG-dependent hospitals which serve a disproportionate share of the poor.**

Recommendation 32. **If policies are adopted which would reduce the number of FMGs in GME, consideration should be given to the following to minimize major disruption to provision of health services:**

a. **A transition period should be allowed to enable hospitals to make necessary adjustments in GME programs. Temporary waivers from such reductions should be provided for programs which offer high-quality education and provide primary care in an underserved area or are serving a large indigent population, because these programs may require more time to increase the complement of alternative full-time health care providers.**
b. **Federal and State Governments and the private sector should provide financial incentives (e.g., educational loan repayment, bonus for tenure, partial payment of malpractice insurance) to assist hospitals in replacing FMG residents with full-time physicians, residents who are graduates of U.S. medical schools, or other appropriate health care providers.**

H. FOREIGN MEDICAL GRADUATES AND INTERNATIONAL RELATIONS

CONCLUSION H-1. IT IS LIKELY THAT GME PROGRAMS WHICH HAVE TRADITIONALLY PROVIDED TRAINING FOR EXCHANGE VISITOR PHYSICIANS WHO RETURN TO THEIR HOME COUNTRIES WILL HAVE TO REDUCE THEIR EFFORTS IF FOREIGN PHYSICIANS ARE EXCLUDED FROM STIPEND/SALARY REIMBURSEMENTS.

CONCLUSION H-2. SOME COUNTRIES SEEKING U.S. ASSISTANCE FOR DEVELOPMENT OF THEIR PHYSICIAN MANPOWER ARE FINANCIALLY ABLE TO SUPPORT THESE EFFORTS; OTHERS, WITH FEWER RESOURCES, ARE NOT. PARTICIPATION IN THE EXCHANGE VISITOR PROGRAM OF THE UNITED STATES BY PHYSICIANS FROM THIS LATTER GROUP OF COUNTRIES HAS BEEN STEADILY DECREASING IN THE LAST DECADE.

CONCLUSION H-3. THERE IS A NEED TO EXPAND AND MODIFY THE EDUCATIONAL OPPORTUNITIES FOR EXCHANGE VISITOR PHYSICIANS TO BETTER MEET THE HEALTH CARE DELIVERY REQUIREMENTS OF THE HOME COUNTRY AND TO ENHANCE RELATIONS WITH DEVELOPING COUNTRIES.

Recommendation 33. **Exchange visitors in traditional GME should continue to be supported like all other participants in GME. Patient care funds should continue to support the proportion of activities that actually provide patient care. Home country support, the trainee's own funds, foreign aid funds, or other sources of support should be used for nontraditional educational experiences of the exchange visitor.**

Recommendation 34. **To encourage reestablishment in the home country, the two-year return home requirement should be modified to increase the number of years to five. This would contribute to a longer period of time for reacculturation before reentry into the United States is possible.**

Recommendation 35. **The public and private sectors should support the efforts underway to implement the International Medical Scholars Program. This support should be both monetary and programmatic.**

Recommendation 36. **Training in traditional GME may not be appropriate for many exchange visitors.**

Although a number of alternative programs exist at the present time, additional programs should be developed. All appropriate bodies, both in the public and private sectors, should assist with the development of programs which would be broader than or different from classic clinical training. Although more expensive (but probably more effective), training assistance should be conducted in settings which involve both the home country and the United States. Funding resources for this effort should be sought from the U.S./home country governments, international corporations, and private foundations.

I. STRUCTURE AND CONTENT OF MEDICAL EDUCATION

CONCLUSION I-1. THOSE WHO BEAR THE COST OF GME, INCLUDING PAYERS AND INSTITUTIONS, HAVE HAD LITTLE TO SAY ABOUT THE LENGTH OR CONTENT OF TRAINING PROGRAMS. LENGTH OR CONTENT REQUIREMENTS CAN BE ADDED WITHOUT ADEQUATE INPUT OF INDIVIDUAL INSTITUTIONS OR PAYERS, EVEN THOUGH THIS RESULTS IN INCREASED TRAINING COSTS.

Recommendation 37. **Certifying boards and accrediting bodies should provide maximum early opportunity for input from institutions and payers in considering changes in the length or content of GME training programs. Certifying boards and accrediting bodies should be required to justify changes that would increase the length of training or would add a research component to a clinical training program. The Council urges the parents of the Accreditation Council for Graduate Medical Education (ACGME) to convene for the purpose of determining methods by which this recommendation can be implemented. It also urges the American Board of Medical Specialties (ABMS) to bring this to the attention of its individual boards.**

Recommendation 38. **In view of educational and other concerns that relate directly to their professional future, medical students and residents should also be given the same opportunity for early input to certifying boards and accrediting bodies.**

CONCLUSION I-2. IN SOME GME PROGRAMS THE QUALITY OF THE EDUCATION HAS BEEN ADVERSELY AFFECTED BY EXCESSIVE SERVICE REQUIREMENTS.

Recommendation 39. **Residency approval bodies should carefully scrutinize those GME programs which have large service loads.**

Recommendation 40. **The Federal Government and the private philanthropic sector should provide resources to study and develop alternative teaching/service models in service-intensive settings. Successful models should be shared with the medical community and institutionalization of these models encouraged.**

CONCLUSION I-3. THE COUNCIL SHARES THE CURRENT CONCERNS ABOUT EXCESSIVE RESIDENT DUTY HOURS AND INADEQUATE SUPERVISION AND THEIR IMPACT ON THE QUALITY OF PATIENT CARE AND RESIDENT EDUCATION.

Recommendation 41. **The Council is supportive of efforts to resolve the problems of resident physician fatigue and inadequate supervision, but it cautions against global solutions which may be insensitive to local variation in patient care loads and service requirements.**

J. DATA AND RESEARCH ISSUES

CONCLUSION J-1. PHYSICIAN MANPOWER ANALYSIS, DEVELOPMENT OF HEALTH POLICY, AND PLANNING CONTINUE TO BE HAMPERED BY CONSIDERABLE LIMITATIONS IN DATA AND RESEARCH.

Recommendation 42. **Adequate public and private sector funding should be provided to support the demonstration models, studies, and data-related activities recommended in this report.**

Recommendation 43. **The Council recommends that annual authorization and appropriation levels of $1.5 million be provided to it to assure that adequate resources are available to support its analytic agenda and cover its staff and meeting expenses.**

Recommendation 44. **Wherever possible and appropriate, encouragement should be given to collaborative public and private sector data collection and research efforts in the area of physician manpower.**

I. Legislative Background

The relationship among graduate medical education (GME), physician supply and distribution by specialty and geography, and the level of GME financing, including that by Medicare, continues to be the subject of debate into the late 1980s. The issues are complex and include the following: (1) the effect of existing GME incentives on physician specialization in general and the supply of primary care physicians in particular; (2) the effect on overall physician supply of continued entry of graduates of foreign medical schools (FMGs) into GME and the medical service implications for some communities of any policies adopted to reduce the influx of FMGs; and (3) the paradox of an increasing emphasis on the provision of care in ambulatory settings, but financial incentives that appear to handicap ambulatory care training.

Medicare since its inception has paid a share of medical education expense in hospitals either as cost reimbursement or as a pass-through in the recent Prospective Payment System (PPS). Medicare policy, however, is but one aspect of financing and influencing GME decision making, with less than one-half of all GME costs borne by Medicare. Over half of these funds are provided by private payers, State and local government, and Medicaid (a Federal/State medical assistance program authorized under the Social Security Act). Immigration policy and policies for the provision of indigent care also represent factors that affect GME policy.

Based on concerns about overspecialization, a possible physician surplus, and Federal support for the training of FMGs, legislation was introduced but not enacted in 1985 that would have established differential Medicare reimbursements to teaching hospitals, based on the distribution of specialty positions in their residency programs, and would have gradually eliminated Medicare reimbursements for FMGs who participate in GME programs. At the same time, Administration budget proposals continued to recommend significant reductions in the funding by Medicare of both direct and indirect costs of GME. (See Glossary for definition of terms used in this report.) The provisions enacted in the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) represented the outcome of the GME debate of the mid-1980s. A number of these provisions were of significance to GME and included reductions in payments for GME. The direct medical education pass-through was changed, effective with cost reporting periods beginning on or after July 1, 1985, from reimbursement of costs to approved hospital-specific full-time-equivalent per-resident amounts updated by increases in the Consumer Price Index. The indirect medical education (IME) adjustment factor was reduced from 11.59 to 8.1 percent per 0.1 full-time-equivalent intern/resident per bed. This was extended through September 30, 1989, by the Omnibus Budget Reconciliation Act (OBRA) of 1986. The OBRA of 1987 further reduced the IME adjustment to approximately 7.7 percent for discharges occurring on or after October 1, 1988 through September 30, 1990, after which it is to rise to 8.3 percent.

Other COBRA changes included limiting full Medicare support for residency training to that required for initial board certification, with a maximum of five years. An exception in the area of geriatrics extended the period under which a residency slot is eligible for full payment by up to two years. Another provision phased out Medicare GME payment for FMG residents who have not passed the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS) or another examination administered by the Educational Commission for Foreign Medical Graduates (ECFMG) such as the ECFMG examination or the Visa Qualifying Examination (VQE).

In response to concerns about the financing of training in ambulatory settings, the COBRA required that interns and residents assigned to hospital outpatient departments be counted in determining a hospital's IME adjustment. In addition, the OBRA of 1986 provided for the inclusion of interns and residents assigned to nonhospital settings in a teaching hospital's direct medical education count if the hospital incurs all or substantially all of the costs of the training program. There continues to be no provision for Medicare financing of GME costs not incurred by hospitals.

The COBRA legislation also mandated several studies. One of these concerned the use of FMGs in the provision of health care services, particularly inpatient and outpatient hospital services, to Medicare beneficiaries. The study was required to evaluate (1) the types of services provided; (2) the cost of providing such services relative to the cost of other physicians providing the services or other approaches to providing the services; (3) any deficiencies in the quality of the services provided, and methods of assuring the quality of such services; and (4) the effect on access to services if Medicare payment for hospitals' costs of GME of FMGs were phased out.

Finally, the Council on Graduate Medical Education (COGME) was created by the Congress as part of the same legislation. The Council originated in an amendment to COBRA proposing that such a mechanism provide an ongoing assessment of physician manpower needs and recommend appropriate

Federal and private sector efforts to address these needs. Statements made at the time the amendment was introduced indicated that the Council was intended to provide a basis for melding manpower and financing policies for GME. Concerns of the Congress included the appropriateness of the mix of specialists and subspecialists being produced by the GME system, and the issue of continued support for the training of graduates of foreign medical schools.

The statute provides that the Council is to report to the Secretary of the Department of Health and Human Services (DHHS), the Senate Committees on Labor and Human Resources, and on Finance, and the House of Representatives Committees on Energy and Commerce, and on Ways and Means. Although named the Council on Graduate Medical Education, the statutory charge to the Council is much broader. It includes (1) current and future adequacies of physician supply, both in the aggregate and by specialty; (2) foreign medical graduates; and (3) medical education programs and financing including both undergraduate medical education and GME. Advice and recommendations are to be provided to the Federal Government regarding its policies in these areas and to the private sector as appropriate.

The legislation specifies that the Council is to be composed of 17 members. Private sector representation is to include practicing primary care physicians, national and specialty physician organizations, FMGs, medical student and house staff associations, schools of medicine and osteopathy, public and private teaching hospitals, health insurers, business, and labor. Federal representation includes the Assistant Secretary for Health, DHHS; the Administrator of the Health Care Financing Administration, DHHS; and the Chief Medical Director of the Veterans Administration.

The functions of the Council are advisory, not regulatory. Its scope, as outlined in statute and noted above, extends somewhat beyond GME. Its charge also includes advice regarding deficiencies and the need for improvement in existing data bases concerning physician supply, distribution, and postgraduate training programs. Coordination with the National Advisory Council on Health Professions Education is also part of the statutory charge to the Council.

By statute, the Council terminates on September 30, 1996. It is to issue its first report by July 1, 1988, and issue further reports every three years thereafter. This document represents the Council's first report to the Secretary, DHHS, and the Congress.

II. Structure, Principles, and Approach

COUNCIL STRUCTURE

At its first meeting in December 1986, the Council elected Neal A. Vanselow, M.D., as its Chairperson and David Satcher, M.D., Ph.D., as Vice-Chairperson. It established three subcommittees, each addressing a specific policy area: physician manpower, foreign medical graduates, and graduate medical education programs and financing. Each subcommittee was composed of four to five Council members, one of whom served as Chairperson. An additional subcommittee on minority representation in medicine was established in February 1988. The primary work of the Council during the first year was carried out by the subcommittees.

Staff to the Council was provided by the Health Resources and Services Administration (HRSA). In addition to the Executive Secretary to the Council, the Bureau of Health Professions of HRSA provided the basic staff support for organizing subcommittee meetings, obtaining expert information, and developing written materials for the policy areas.

Each subcommittee was given a detailed charge and developed conclusions and recommendations for consideration by the entire Council. Although the approaches varied, the strategy common to these groups included (1) identification of key issues, (2) a detailed review of the subject area and existing data pertinent to it, and (3) formulation of conclusions and recommendations. The subcommittees relied heavily on data and information presented by selected expert individuals and organizations. For the most part the Council did not collect its own primary data because of limitations of time and funds available to it.

PRINCIPLES

The Council developed the following set of ten principles as statements which would underlie its work and serve as a checklist for evaluating its conclusions and recommendations.

Principle 1. The primary concern of the Council must be the health of the American people. There must be assured access for all to quality health care. Concern for the well-being of the health professions, medical schools, and teaching hospitals, while important, must be secondary to the above concerns.

Principle 2. The Council should consider the diverse needs of the various geographic areas and segments of the population, such as rural and inner-city areas, and minority and disadvantaged populations.

Principle 3. A goal of the Council is increased representation of minorities in the health professions. Targeted programs are appropriate and a necessary means of achieving this objective.

Principle 4. The Council must consider the interrelationship between services provided by physicians and those provided by other health professionals.

Principle 5. The Council will favor the use of private sector solutions, recognizing that governmental or other interventions have been and may continue to be needed to address specific problems of distribution, quality, and access to health care.

Principle 6. The Council should be concerned about effects on total health care costs in the Nation. The Council must also take into account the financial and programmatic impact of its recommendations on the Federal budget in both the short and long term.

Principle 7. The Council recognizes that health care in the United States is not a closed system, and therefore its deliberations must be guided by an international perspective.

Principle 8. The Council must take into account changes in demographics (e.g., the aging population), disease patterns (e.g., increasing prevalence of the acquired immunodeficiency syndrome (AIDS)), patterns of health care delivery (e.g., increased emphasis on ambulatory care), and the unmet needs for prevention and care.

Principle 9. The Council believes that a strong system of medical education must be maintained to expand medical knowledge and provide access to quality medical care through an adequate supply of appropriately educated physicians.

Principle 10. American medical education should provide a basis for physicians of the future to be able to deliver continually improving patient care through a better understanding of disease processes and their clinical manifestations. The education system should prepare physicians to appropriately apply new techniques of diagnosis, treatment, and prevention in a compassionate and cost-effective manner.

ISSUES

To focus its efforts for the first report to Congress and the Secretary, the Council developed a number of issues for consideration by each subcommittee. The subcommittees and Council addressed the issues in whole or in part as available time and information permitted. The issues, listed below, were also helpful in identifying data inadequacies and research needs. Those receiving emphasis in the first report are asterisked.

A. PHYSICIAN MANPOWER

*1. Assuming a continuation of current policies and present trends, what conclusions can be drawn about the adequacy of the expected supply of physicians over the next two decades?
   *a. in the aggregate?
   *b. for primary care physicians?
   c. by specialty?

2. What conclusions can be drawn about the effects of new technologies, scientific breakthroughs, new diseases, and demographic changes on the demand for physician manpower? Furthermore, what conclusions can be drawn about the effects of changes in the areas of geriatrics and long-term care on the demand for physician manpower?

*3. What conclusions can be drawn about the impact of the cost of medical education on the number of qualified students seeking such an education, particularly those from underrepresented groups?

*4. What policy changes in the public and private sectors are recommended to deal with any projected imbalances in the physician supply? What is the relative role of marketplace versus other initiatives to remedy these imbalances?

5. What impact will these recommendations have on:
   a. the quality of health care?
   b. health care costs?
   c. access to health care?
   d. minority representation in the medical profession?
   e. physician function?

6. To what extent can the goals of quality, affordability, and accessibility of health care be achieved by substituting nonphysician providers for physicians?

7. Is it desirable to create a buffer to avoid rapid swings in physician supply? If so, how can this be achieved?

*8. To what extent can the above issues be addressed and resolved in time for the first report, given the adequacy of studies and data presently/potentially available for the Physician Manpower Subcommittee to draw conclusions and make recommendations about the adequacy of the expected supply of physicians?

B. FOREIGN MEDICAL GRADUATES

*1. What effect will the removal (abrupt or phased) of FMGs from hospital training have on the availability of hospital-based services? What policies should be implemented if short-term effects are disproportionately distributed among hospitals and/or specialties?

2. What effect will there be on the total number, specialty and geographic distribution of practicing physicians if the number of FMG entrants decline?

*3. Are there different obligations to U.S. citizen FMGs (born and naturalized) than to non-U.S. citizen FMGs (permanent residents, refugees, and international visitors) regarding opportunities for GME?

*4. Is there a need for a different financing system for FMGs in GME than for graduates of U.S. medical schools?

*5. Should the United States continue to provide specialty training for international exchange visitors who will return to their native country to practice? If so, should existing GME training be modified with opportunities for other models of training/assistance?

*6. Should additional mechanisms be established for evaluating FMGs before their entry into GME?

*7. Is there a need for formal recognition of foreign medical schools?

8. Are there quality-of-care issues specific to FMGs which require attention?

*9. Are there other GME training program issues specific to FMGs which require attention?

C. GRADUATE MEDICAL EDUCATION PROGRAMS AND FINANCING

*1. What should be paid for in GME?
   *a. How should direct GME costs be financed?
   b. How should the financing of faculty be handled?
   *c. What should be incorporated into indirect teaching adjustments?

*2. What are appropriate sources for financing GME? Should the Federal Government fund GME? If so, how and to what degree?

*3. Should GME costs be separately identified at all, or should they be integrated into payment for services?

*4. How should GME financing be channeled? To hospitals, ambulatory care settings, practice groups, residents, etc.?

*5. How should GME financing of FMGs be handled? How should GME financing for international exchange visitors be handled?

*6. If it is desirable to increase the emphasis on teaching in noninpatient settings, how should medical education be financed in ambulatory or other noninpatient settings?
   *a. What can be done in graduate and undergraduate medical education to provide incentives and eliminate barriers to increased teaching in noninpatient settings?
   b. What is the role of the public versus the private sector in achieving these objectives? What steps should be taken by academic health centers?

7. What choices should be made in regard to numbers of years of residency training? Who should make the choices and how should they be made?

8. Should the numbers and types of physicians trained be largely guided by the health care delivery needs of individual facilities or by national manpower considerations?

*9. What is the relationship between GME and the delivery of health care for the poor?

APPROACH

In preparing this first report, the Council developed conclusions and recommendations based on the availability of current information and data. For its future reports, the Council intends to explore a number of issues in further detail and carry out studies in a number of areas (see Long-Term Agenda, p. 33).

The Council met for the first time in December 1986. At this meeting, key congressional staff and Department officials described the rationale for the Council's establishment and their expectations for its work. At subsequent meetings, held from February through October 1987, each subcommittee of the Council took one of two days at each meeting to receive written materials and expert presentations in its subject area. Each plenary session of these meetings was highlighted by an overview presentation for one of the three major subject areas of interest: Roy M. Schwarz, M.D., Assistant Executive Vice President for Medical Education and Science, American Medical Association, addressed the Council on "Foreign Educated Physicians: The Other Manpower Stream;" Alvin R. Tarlov, M.D., President, Henry J. Kaiser Family Foundation and former Chairperson of the Graduate Medical Education National Advisory Committee (GMENAC) spoke on "Physician Manpower Issues;" and Robert A. Derzon, Vice President, Lewin and Associates and former Administrator of the Health Care Financing Administration (HCFA), presented "Graduate Medical Education Financing Issues." In addition to these overviews, presentations were also given on "The Health Policy Agenda for the American People," by Louis J. Kettel, M.D., member of the Steering Committee and Chairperson, Workgroup on Education, and on "Graduate Medical Education Developments in the State of New York," by Alfred Gellhorn, M.D., Director of Medical Affairs for the New York State Department of Health and recently Chairman of the New York State Commission on Graduate Medical Education.

In May 1987, the Council Chairperson on behalf of the Council consulted with key DHHS officials and congressional staff regarding the Council agenda. These discussions provided useful insights into setting the priorities of the Council and were helpful in identifying a number of analytic efforts for followup by Council staff. A summary of these consultations, which was entered into the public record in June 1987, is included in the Appendix of this report. Among other things, the consultations prompted Council consideration of (1) the consequences of possible reductions in Medicare funding support for FMGs in residency positions and (2) priorities for Medicare funding of direct medical education costs.

An important feature of the Council's first year was its public hearing, convened in November 1987. With over 50 organizations participating, the hearing provided useful testimony for the Council. Throughout, presenters were in general agreement concerning support for the principles developed by the Council, the importance of meeting the health care needs of the underserved, the importance of maintaining and enhancing the representation of minorities in medicine, the value of further emphasis on primary care skills to meet societal needs, the need for increased training in ambulatory settings, and the complexities and uncertainties regarding current and future assessments of physician needs or requirements. Divergent views were presented on such matters as physician surplus and consequences, Medicare support for FMG residents, the use of alternative health care providers to provide services currently rendered by residents, and the process for changing the length and content of training requirements for residency programs. A detailed summary of the public hearing is included in Volume II of this report.

Comments of individual members of the Council are also included in Volume II.

STRATEGY

The strategy followed by the Council in completing its first report included heavy reliance on existing quantitative information as well as expert judgment. The Council had neither the time nor the resources to collect and analyze its own primary data. In the area of specialty manpower analysis, for example, the work GMENAC completed in 1980 was the last major analytic effort to cover virtually all physician specialties. Although a few excellent analyses have been completed in the past seven years for some specialties, these have focused on supply, not requirements for physician manpower. Most specialties have not carried out such studies, and the availability of independent information sources in this area has been quite limited, particularly for requirements. The individual subcommittee chapters in Volume II of this report elaborate on the supporting information used for the Council's conclusions and recommendations.

The Council also assumed a continuation of current health care policies and trends. At the same time, its members clearly recognized the possibility that significant changes in medical technologies, disease patterns, or different national policies or programs affecting access to health care could greatly affect the conclusions and recommendations offered in the document. These areas will likely be explored further in the next report of the Council.

ACCESS TO HEALTH CARE—A PERVASIVE THEME

The issue of access to health care generally, and concern with meeting the health care needs of the underserved specifically, pervaded much of the Council's work. The first principle developed by the Council states that "the primary concern of the Council must be the health of the American people. There must be assured access for all to quality health care." Testimony provided to the Council consistently emphasized that an important interrelationship exists among access, educational programs, and manpower. Some organizations commented on the need to adopt a national health insurance program or to maintain and strengthen existing service programs to meet health care needs. Others commented on the close relationship among programs addressing manpower development, educational financing, and health care delivery.

Testimony was received that health care for the underserved would be negatively affected by any cutbacks in manpower availability or reductions in GME financing. Suggestions were made to either resist such national policies or to recommend policies with phased-in implementation to assure minimal disruption of health care service provision. Concern was also expressed regarding the effect of increased costs of medical liability insurance on access to health care.

The Council recognizes that its charge does not encompass all issues regarding the Nation's health care system. At the same time the Council understands that any changes in national policies regarding access to quality care can have significant effects on important aspects of medical education and the supply of health professionals. All Council members believe that sensitivity to access concerns needs to be a continuing, pervasive theme for Council deliberations. Many of the recommendations presented in this first report have been developed with this sensitivity in mind.

A number of the Council's conclusions and recommendations have been developed in the context of current access policies. As part of its longer range deliberations, the Council intends to review the likely effects of changes in selected policies. For example, any increase in the entitlement of populations, such as those currently lacking health insurance, is likely to have major implications for physician manpower requirements and graduate medical education needs.

III. Overview of Medical Education

The standard medical education in the United States consists of four years of medical school leading to the medical degree (M.D.) or osteopathic medical degree (D.O.), followed by a period of graduate medical education in a residency training program. The medical school period is referred to as undergraduate medical education. While formal teaching contributes significantly to medical education, the case management method, whereby future practitioners learn clinical medicine through practical "hands-on" experience and involvement in the care of numerous patients, is the principal teaching tool of clinical medicine in U.S. medical education.

Undergraduate Allopathic Medical Education

Most students who matriculate in medical school have obtained a college degree or higher. While most schools have four-year programs for students who have completed three or four years of college, 14 medical schools permit a limited number of admissions following the senior year of high school (most going into combined M.D. and baccalaureate programs), 2 admit most of their students following the high school senior year, and 10 provide an optional three-year medical curriculum in addition to their regular four-year program.[1]

Medical students are instructed in the basic sciences in the first and second years, but frequently begin some clinical experience in the second year. Full-fledged training in clinical medicine begins in the third year of medical school, primarily spent with patients, under the supervision of senior resident physicians and medical school faculty, in required inpatient hospital-based clerkships in the basic specialties of internal medicine, obstetrics/gynecology, pediatrics, psychiatry, surgery, and, in some schools, family medicine. Ambulatory rotations and electives predominate in the fourth year of medical school; many schools allow senior students to take electives for their entire fourth year, which is used by students to obtain additional knowledge and skills in the basic specialties or gain exposure to other specialties, sometimes at other medical schools.

There has been a small, gradual decline in the numbers of applicants, enrollees, and graduates in U.S. medical schools over the past few years. Specifically, the number of allopathic graduates declined to 15,830 in 1987 from a peak of 16,327 graduates in 1984, or about 500 in the four-year period. There has been a somewhat greater decline in the applicant pool over the same period, and there is a concern among medical educators that the applicant-to-acceptance ratio, after a three- or four-year period of stability at 2.0:1 to 2.1:1, has undergone a steady decline to 1.7:1 in 1987-88.[2]

Graduate Allopathic Medical Education

It is generally agreed that undergraduate medical education is not sufficient to prepare the student for independent medical practice without an additional training period. Accordingly, physicians almost universally enter into residency training after receipt of the medical degree—between 97.8 and 99.0 percent of physician graduates from 1975 to 1983.[3]

GME serves the dual purpose of (1) providing for an expansion of the knowledge and skills acquired in medical school through the progressive assumption of personal responsibility for patient care in a supervised clinical educational environment, and (2) training for practice in one of the 31 specialties and 50 subspecialties of medicine. Resident physicians undertake the advanced training to gain knowledge, skills, and practical experience by participating in the diagnosis and care of patients under the supervision of medical school faculty, volunteer attending physicians, and more senior residents. During this phase of medical education, the knowledge and skills acquired in medical school are enhanced through opportunities to learn about the physical, emotional, and social variables in health and disease states.

It is widely held by medical educators and physician organizations that three years of GME is a desirable minimum for practice in this country. Indeed, 98 percent of U.S. medical school graduates plan to complete three or more years of domestic graduate medical education.[4] Licensure requirements in all States but one effectively require U.S. medical school graduates to take at least one year of approved U.S. GME to qualify for a license to practice medicine. Some States require two or three years for U.S. graduates, and all States require foreign medical graduates to take from one to three years of approved U.S. GME.[5]

The hospital is the principal facility in which GME is conducted, although residents may be assigned to ambulatory centers or educational and research facilities in the course of completing residency programs. As mentioned above, individual residency programs are directed toward achieving competence in one of the specialties or subspecialties of medical practice. A physician who successfully completes an approved residency program and other requirements qualifies for examination by the specialty board that issues certificates in that specialty or subspecialty. The length of residency training required for certification varies by specialty and subspecialty, ranging from a minimum of three years for family practice, internal medicine, pediatrics, and emergency medicine to seven years for thoracic surgery. Some specialty boards also require practice experience after residency and before certification. This increases the period between receipt of the M.D.

degree and certification in those specialties. The longest such period is eight years for neurological surgery.[6]

The system of GME in the United States has grown rapidly since World War II. Before that time, only a small fraction of physicians had formal training beyond the one-year internship. The 587 hospitals that trained 5,000 physicians in 1940 grew to 1,700 hospitals and more than 60,000 residents by 1970, and by 1987 there were almost 81,000 residents participating in more than 6,300 residency training programs in more than 1,500 institutions in the United States. More than half of these residents are trained in the 115 major affiliate hospitals of the Nation's academic health centers, which generally offer residency training in virtually all of the medical specialties and subspecialties.

Residency Positions and Applicants

Positions open to medical school graduates with no previous GME training are identified here as graduate-year-one (GY-1) positions. (This convention of definition, more commonly used for statistical reporting, uses "PGY-1" to designate first-year positions in all specialties, including those requiring prior GME. The more common terminology, using "PGY-1" for positions open to medical school graduates with no previous GME, is used throughout the remainder of the report.) Thirty-five years ago there were about 6,000 allopathic medical school graduates and 11,000 new entrant GY-1 positions. In the early 1970s, the ratio was 2 GY-1 positions for each graduate—20,000 positions for 10,000 allopathic medical school graduates. The number of GY-1 positions dropped to 16,000 in 1975 after the demise of the internship year, but subsequently increased again. About 20,522 first-year positions were available in 1987, when there were 15,830 U.S. allopathic medical school graduates. This represents a ratio of approximately 1.3 positions per U.S. allopathic graduate applicant.[7]

There were a total of 24,768 applicants for the National Resident Matching Program (NRMP) "match" in 1988 (see Glossary). In addition to 15,776 U.S. senior student applicants, another 3,368 applicants were made up of Canadian graduates, previous years' graduates from U.S. medical schools, osteopathic physician graduates seeking allopathic positions, and "fifth pathway" students (U.S. citizens educated in medicine abroad with a subsequent year of training supervised by a U.S. medical school faculty). As discussed in greater detail below, positions are also applied for by FMGs—both U.S. citizen (USFMGs) and foreign national (FNFMGs). According to NRMP statistics, by 1988 the number of FMG applicants was down to 1,535 USFMGs and 4,089 FNFMGs. The total of 24,768 U.S. and foreign medical graduates applying for the 19,513 GY-1 positions available in the 1988 match represents a drop of 14 percent in total applicants from 1984 and a 1988 ratio of 0.8 position per applicant (1.3 applicants per position).[8]

The number of GY-1 positions available has not changed appreciably over the past five years; as a result of the small recent decline in the number of U.S. medical school graduates, the ratio mentioned above has varied little from about 1.3 GY-1 positions for each U.S. graduate. However, a higher proportion of residency positions are actually filled: about 87 percent of GY-1 positions and over 95 percent of all positions in 1987.[9] The higher percentage represents filling of residency positions by previous graduates of U.S. schools and FMGs.

The number of GY-1 residents on duty each September has nevertheless been dropping noticeably in the recent past, from 19,168 in 1985 to 17,991 in 1987. As a result, the percentage of GY-1 positions not filled increased from just under 7 percent in 1985 to over 12 percent of GY-1 positions in 1987.[9] This may reflect the gradual decline in the number of U.S. medical school graduates and the greater decline in the number of FMGs applying and being accepted in 1986 and 1987.

The total number of residents in training decreased in 1985, but increased in 1986 and 1987 primarily because the count of residents included for the first time those who were training in the newly accredited internal medicine subspecialty programs. Thus, almost 81,000 residents were on duty for the 1987-88 residency year, compared with about 74,500 in 1985-86.[7]

When the number of newly counted subspecialty residents is excluded, there is relative stability over the three-year period in the number and percentage of residents in the three primary care specialties of family practice, general internal medicine, and general pediatrics. Attention has been drawn, however, to the recent experiences primary care specialties have had in filling their GY-1 positions in the annual NRMP matching of applicants to programs, raising concerns about possible trends in student specialty choices. In 1987, the number of total and U.S. senior medical graduates matched to first-year positions in internal medicine residency programs declined. In the 1987 match, 5,827 applicants, including 4,781 U.S. senior medical students, were placed in the 7,076 internal medicine GY-1 positions available, compared with 5,985 (including 4,994 U.S. seniors) matched into 6,912 internal medicine GY-1 positions in 1986 (the decreased number and 164 additional positions combined to produce a substantial drop in the percent filled). In 1988, by contrast, the number matched into internal medicine GY-1 positions increased (6,060/4,846 U.S. seniors), whereas family practice underwent a significant decline from 1,979 total (1,728 U.S. seniors) in 1987 to 1,767 total (1,494 U.S. seniors).[8]

Even though the actual number of residents on duty increases somewhat after the match, the results of the match itself are thought to represent the preferred choices of both applicants and programs.

Women in GME

The number and percentage of women in residency programs have been steadily increasing, reflecting a comparable increase of women medical school students and graduates since the 1960s. The percentage of women among all residents rose from 15 percent to almost 28 percent between 1977 and 1987. Almost two-thirds of women residents in 1987 were training in family practice, internal medicine, obstetrics/gynecology, pediatrics, and psychiatry (and are more heavily represented in the last three) compared with about 45 percent of male residents training in those five specialties. At the same time, although the numbers remain

small, there appears to have been a greater-than-average increase between 1981 and 1987 in women residents training in otolaryngology, urological surgery, and emergency medicine.[10]

Minorities in Medical Education

Compared with their representation in the general population, most minorities are underrepresented in the physician manpower pool. They are underrepresented among applicants, enrollees, and graduates of medical schools; among medical residents, medical school faculty, and biomedical research scientists; and among members and leaders of national, State, and local medical organizations and specialty societies. Underrepresented minority medical school applicants decreased in number from 1976 to 1986, but increased as a percentage of the total medical school applicant pool. Their acceptance rate rose during that period as well. Underrepresented minorities were 10.1 percent of all medical students in 1986-87.[3] In all, the representation of most minorities in the physician manpower pool is expected to grow more slowly than their representation in the general population.

Indebtedness of minority medical school students and graduates is of special concern. The average debt of minority graduates is significantly higher than that of nonminority graduates. Almost 28 percent of 1986 minority medical school graduates were in debt for $50,000 or more compared with 17 percent for all senior medical students including minorities. The indebtedness of minority graduates with debts increased by 14 percent between 1984-85 and 1985-86 compared with just 6 percent for all indebted graduates including minorities.[11] (See section C.)

Osteopathic Medical Education

Osteopathic undergraduate medical education is conducted in the Nation's 15 osteopathic medical schools. As in allopathic medicine, about 97 percent of entering students hold baccalaureate degrees or above. All osteopathic medical programs require four academic years of study, and there are many other similarities to allopathic undergraduate medical education. Total enrollments continue to rise, but at a lower rate than in the early 1980s, partly because of stabilization of the number of osteopathic medical schools at 15, up from 9 in 1975-76. Total enrollment reached 6,671 in 1985-86, only 1.8 percent more than in 1984-85. First-year enrollees appear to have plateaued in 1985-86 at 1,760, only 10 more than in the previous year.

More osteopathic physicians graduated in 1987 than in any previous year; the 1,579 graduates represented a 7.1 percent increase over the number in 1985. Because enrollment has increased and osteopathic medical student attrition is low, the number of graduates is expected to further increase to between 1,600 and 1,700 graduates annually by 1989. The 344 women who graduated in June 1985 accounted for 23.3 percent of that year's graduates.

The first (entry) year of osteopathic GME is the internship year. There were 1,352 D.O.s in funded American Osteopathic Association (AOA)-approved internship positions out of 1,387 such positions offered in 1987-88. An additional 103 D.O. interns were in allopathic GY-1 positions in 1987, and 50 D.O.s were in military internships for a total of 1,505 D.O. first-year trainees in all sites.

A total of 2,793 D.O. graduates of osteopathic medical schools were in residency (GY-2 through GY-5) training programs in 1987. Of these, 1,250 were in osteopathic (AOA-approved) residency programs and 1,543 were in allopathic residency programs, for a total of 2,602 D.O. interns and residents in AOA-approved programs. Over 50 percent of osteopathic medical school graduates in both osteopathic and allopathic residency training programs choose to specialize in family practice and internal medicine.[13]

FMGs

The participation of FMGs in the U.S. GME system has changed over the years. Since 1970, when FMGs represented one-third of all residents, their proportion has declined to less than 16 percent today. During the 1980s, the number of FMGs in GME increased slowly through 1984, but dropped almost 10 percent between 1984 and 1986.[10] A modest subsequent increase in 1987 can be accounted for by the increased count in newly accredited subspecialty programs.[7] USFMGs have been a substantial proportion of all FMGs in recent years. However, after rising in both numbers and proportion of all FMGs through 1984, both their numbers and percentage of all FMGs declined, the latter to 45.8 percent in 1987.[10]

FMG entry into the first year of residency is one indicator of ultimate FMG entry into practice in the United States. The number of all FMGs entering U.S. GY-1 positions decreased in recent years through 1986, rising slightly in 1987. Most of the drop can be accounted for by the decline in USFMG GY-1 entrants, whose percentage of all FMGs also dropped from 60.9 percent in 1984 to 47.6 percent in 1986. By contrast, FNFMGs showed a smaller decline between 1984 and 1985, and increases in 1986 and 1987.[7,10]

No accurate method has been developed for determining the number of American-born students studying medicine outside the United States and Canada. In 1978 it was estimated that between 12,000 and 15,000 American-born students were studying in foreign medical schools. According to testimony presented at the Council's public hearing, this number appears to have declined recently. The enrollment of U.S. students at the major foreign medical schools attended by American-born students has reportedly decreased by as much as 50 percent since 1985, and best estimates indicate a reduction to between 3,000 and 4,000 in 1988. In addition, the number registering for the basic science examination (Day 1 of the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS)) required for residency training in the United States declined by 33 percent from 1,668 to 1,114 between 1985 and 1987.

Continuing Medical Education

Continuing medical education (CME) is provided for physicians who have completed their undergraduate and graduate

medical education. It encompasses a wide variety of activities, usually of relatively short duration and designed to maintain or upgrade existing knowledge and skills. The vast majority of these activities consist of group instruction courses and seminars or workshops sponsored by a diversity of institutions such as medical schools, hospitals, State and local medical societies, medical specialty societies, etc.[13]

Sponsors of CME programs are accredited, rather than the programs themselves, as part of a voluntary State and national system. In 1987, State medical societies accredited a total of 1,871 such sponsors at the State level, and the Accreditation Council for Continuing Medical Education (ACCME) at the national level accredited another 465 in that year. Twenty-two States and Puerto Rico require CME for physician relicensure, and 10 State medical societies have CME requirements for membership. Finally, 15 specialty boards grant time-limited specialty certificates, and 10 of these have CME requirements as part of that process.[14]

Financing

Financing for medical education derives from a multitude of sources. In some ways, the financing of undergraduate medical education is more difficult to analyze than that of GME; for example, medical schools carry out both undergraduate medical education and GME. Because of this interrelated mission, there is little available information aside from that on sponsored research that specifically relates sources of medical school income to the educational activity supported.

Medical school financing comes from a diversity of sources. Payments for medical services currently account for the largest single portion of medical school revenues. These amounted to approximately $3.77 billion or 34 percent of the $11.1 billion total medical school revenues in 1987. About three-fifths ($2.35 billion) of medical service revenue came from professional fee income. Federal support, primarily research, provided another one-quarter, and State and local government supplied another one-fifth of total revenues.[11]

GME financing can be treated more explicitly than undergraduate medical education. The predominant source is payments to hospitals for patient care services, and from 80 to 90 percent of intern and resident stipends and fringe benefit costs are estimated to be offset by such payments. Other GME program and overhead costs are supported by this source as well. Expenditures for GME can be viewed as (1) direct costs, consisting of intern/resident salaries and fringe benefits, faculty compensation, and administrative and other program expenses such as personnel, space, equipment, and supplies, and (2) related increases in operating costs of hospitals and ambulatory facilities associated with teaching activities, described as "indirect costs" in the Medicare program.

Only Medicare nationally and a few third-party payers locally explicitly identify GME direct cost components in their payments for hospital services, making data unavailable on the total of such costs in the United States. The Health Care Financing Administration (HCFA) estimates that in 1988 Medicare will spend $975 million on direct costs for physician GME (this is approximately 75 percent of the $1.3 billion total that Medicare spends for direct costs; the other 25 percent supports nursing and allied health clinical educational programs).[15] Medicare direct costs include resident salaries and fringe benefits, a substantial amount for teaching physician costs, and costs of classroom and office space, and allocated overhead.

The Medicare figure reflects only its share of GME direct costs, which is likely to be about 25 to 35 percent of total direct costs for all payers. Because other payers generally do not identify expenditures for GME, the total can only be estimated. The Council received one estimate that approximately $3.9 billion will be spent by all payers for GME direct costs in 1988.[16]

A major component of GME direct costs is the salary and fringe benefit costs of the interns and residents. An estimate presented to the Council indicated that $2.133 billion will be spent by all payers on intern and resident salaries and fringe benefits in the 1987-88 training year.[17]

A second major expenditure associated with GME is identified by Medicare and reimbursed under the Medicare Prospective Payment System (PPS) as indirect costs, paid as the indirect medical education adjustment. As noted above, this adjustment is intended to cover increased operating costs of teaching hospitals found to be statistically associated with the number of interns and residents. HCFA estimates it will spend approximately $2.02 billion on the indirect teaching adjustment in 1988.[18] No national estimate of the total such expenditures from all payers is available. While indirect costs include those associated with teaching activities such as increased testing and operational inefficiences, they also reflect the greater severity of illness and the type of patients found in teaching facilities. The methodology used to estimate this combination of costs is unable to clearly differentiate educational from other costs.

Medicaid expenditures for GME can be estimated to only a limited degree for some States. For all States, only a very gross estimate can be made of Medicaid expenditures for GME. Based on data from a study of 1986 Medicaid expenditures in 19 States, an estimate of $1 billion for all States was provided to the Council.[19]

In sum, national estimates of GME costs are imprecise. Certain component costs and expenditures have been identified, but the larger problems of determining all GME costs, agreeing on definitions of physician service versus education, and fully accounting for such costs remain unresolved. Data and estimates appear not to be available for the preponderance of what is spent for GME in the United States.

The financing of faculty, also primarily from payments for patient care services, supports both undergraduate medical education and GME activities. The amount going to either activity is not known and cannot be estimated without arbitrary allocations. It should be noted that these are the same types of payments that would be made to physicians in nonteaching settings for care of patients. Available national data for payments to faculty physicians are reported yearly as medical school revenues, although not all such data are reported.[11] In many teaching hospitals, there is a combination of payments made to the hospital for faculty supervisory costs and to faculty for patient care services. In some teaching hospitals, the faculty are salaried employees paid from hospital revenues.

In most medical schools and some hospitals, payments to physicians frequently go into faculty practice plans (FPPs), which typically serve as mechanisms to structure both the compensation and the practice activities of teaching physicians. Although no firm national data are available on the total amount of such payments, it has been estimated that total income to all FPPs is approximately $1.75 to $3.5 billion, of which about 20 percent or approximately $375 to $750 million has been estimated to come from Medicare teaching physician payments.[10] These data only partially correspond with reported professional fee and medical service income to medical schools, because available data do not include all FPP revenues and not all professional fee income is paid into FPPs.

The Veterans Administration (VA) also participates in financing GME. Approximately 39 percent of the Nation's residents rotate through over 8,000 residency positions in the VA hospital system, which amount to about 12 percent of all residency slots in the United States. These tend to be relatively concentrated in specialties related to the VA patient population, such as family practice, general internal medicine, general surgery, and urology. The VA spends approximately $220 million annually on resident stipends and fringe benefits.

The known expenditures for GME are large. About $3 billion is spent by Medicare alone on direct and indirect costs, and probably more than $4 billion is spent by all payers including Medicare for direct costs of GME. The funds are unevenly distributed: in 1984, almost 80 percent of U.S. resident physicians were located in the 369 major teaching hospitals that were members of the Council of Teaching Hospitals of the Association of American Medical Colleges (AAMC), or 6.4 percent of the 5,909 U.S. acute-care hospitals.[11] Another 19 percent of residents were in an additional 9.5 percent of hospitals that were medical school affiliates. Thus, fewer than 1,000 U.S. hospitals very likely received nearly all the GME funds spent in that year.

Notwithstanding the large sums spent for GME, it has been estimated that the total probably does not reach two percent of all health care expenditures.[12] Therefore, savings in GME are likely to be very small as a percentage of total U.S. health care spending. Nevertheless, the visibility and amount of expenditures for medical education and the need to assure their appropriateness are likely to result in a continued examination of the means and products of spending on GME.

IV. Conclusions and Recommendations

This section of the summary report presents the Council's conclusions and recommendations with supporting narrative. It should be reemphasized that each of the subcommittees dealt with its assigned area in detail, and Volume II of the Council's report contains extensive narrative and documentation on the points which follow. In addition, Volume II also contains a listing of references used by the subcommittees, as well as a detailed summary of the November 1987 public hearing.

A. PHYSICIAN SUPPLY IN THE AGGREGATE

In approaching its task, the Council first considered questions regarding the adequacy of physician supply in the aggregate. This assessment was based on the continuation of current national and State policies and present trends affecting the U.S. health care system.

CONCLUSION A-1. FROM THE DATA AND TESTIMONY IT HAS RECEIVED, THE COUNCIL HAS CONCLUDED THAT THERE IS NOW OR SOON WILL BE AN AGGREGATE OVERSUPPLY OF PHYSICIANS IN THE UNITED STATES. THE COUNCIL NOTES, HOWEVER, THAT THERE ARE SIGNIFICANT UNCERTAINTIES WHICH COULD CHANGE THIS ASSESSMENT. BECAUSE OF THE MANY FACTORS AFFECTING BOTH THE SUPPLY OF PHYSICIANS AND THE DEMAND FOR PHYSICIAN SERVICES, THE COUNCIL IS UNABLE EITHER TO MEASURE THE EXTENT OF THE OVERSUPPLY OR TO PREDICT HOW FAR INTO THE FUTURE IT WILL PERSIST.

Available analytic studies and projections reviewed by the Council support its conclusion of overall physician oversupply. For example, using a demand-utilization approach for estimating future manpower requirements, the HRSA Bureau of Health Professions (BHPr) projects an oversupply of physicians in the aggregate by 1990 (nearly 30,000), lasting at least through the year 2000 (around 70,000).[33]

Similarly, the general conclusion of physician oversupply made by GMENAC nearly eight years ago also seems applicable.[34,35] Trends during the 1980s in numbers of physicians in GME programs, which have been used as a measure of entry into the U.S. physician manpower pool, appear to be consistent with the GMENAC projections of numbers of residents in the aggregate by 1990. Assuming the validity of the adjusted-needs projections for 1990 developed by GMENAC, current residency supply trends appear to be consistent with a projected oversupply in the aggregate.

Finally, despite caveats about methodology and availability of detailed estimates, the Council is persuaded that a limited analysis of physician staffing and projected growth rates in health maintenance organizations (HMOs) lends further support to this conclusion of oversupply. Indeed, several studies have suggested that fewer physicians are needed for a given population in an HMO setting than in traditional fee-for-service settings.

The Council has concluded, however, that because of the many factors affecting both the supply of physicians and the demand for physician services, it cannot measure the extent of the oversupply or predict how far into the future it will persist.

At the Council's public hearing, many organizations commented on the difficulties in making precise assessments of physician needs or requirements, particularly by specialty. Examples of factors cited were modifications of national health policies, including extension of insurance to more people; shifting patterns of alternative health care delivery systems; changes in financing of health care; aging of the population; developments in technology; and the emergence of new diseases such as AIDS that can influence the demand for medical services.

Changing components of physician supply impacting on the precise quantification of the projected supply include estimated changes in medical and osteopathic school enrollment, the projected numbers of FMGs entering the physician supply, the increased numbers of female physicians projected, unexpected changes in physician productivity, and trends in medical liability and malpractice.

In reaching its conclusion, the Council notes that its determination of physician oversupply is extremely susceptible to relatively minor changes in the assumptions of the models used to generate the forecasts of supply and requirements. It further notes that there are significant uncertainties which could change its assessment of physician oversupply.

On this note, the Council is aware of recent articles which argue that there will be little or no physician surplus between now and the year 2000. In one study,[36] the authors present a new framework for estimating the future balance between supply and demand with respect to physician services. They conclude that even if competitive medical plans serve approximately half the population by the year 2000, there will probably be little or no surplus of physicians in patient care. The study's premises and conclusions bring into sharper focus the levels of uncertainties regarding supply and requirements assumptions and methodologies. The study, for example, assumes a stronger increase in the demand for physician services than that assumed in other models; it also projects a greater increase in the number of physicians

in research, teaching, and administration. It is clear that further surveillance of information and analytic work in this area is warranted. (See Section J.)

CONCLUSION A-2. THERE IS CONFLICTING EVIDENCE AS TO WHETHER AN OVERSUPPLY OF PHYSICIANS WOULD NECESSARILY LEAD TO SOCIALLY UNDESIRABLE CONSEQUENCES.

There is no consensus regarding the social consequences of the increasing supply of physicians, and available information and testimony on the subject are not definitive; both "positive" and "negative" effects can be identified.

Desirable consequences often cited include increased availability of physician services; improved quality of care due to additional time available per patient; and greater physician attention to health promotion and disease prevention activities, teaching, and community service. Undesirable consequences often cited include poorer quality of care due to fewer opportunities for maintaining skill levels, added patient risks resulting from any tendency to perform "unnecessary" procedures, and increased expenditures for health care.

The Council is also persuaded that physician oversupply is not an action-forcing public policy issue at this time. At the public hearing, for example, although many organizations made reference to a physician surplus, most of the testimony did not support any overt action to limit the size of the overall supply of physicians. Calls for public or private sector responses to reduce the overall physician supply were offered by only a few organizations. The Council considered but does not recommend any national policy to restrict or reduce the overall supply of physicians other than leaving the determination of the overall level to the marketplace. The Council was persuaded, however, that if steps are taken to reduce the physician supply, the reduction should take place in entering class size rather than in the number of residency positions in GME. Otherwise, reductions in the number of GME positions may jeopardize the ability of qualified U.S. medical school graduates to enter GME to complete their medical training.

Recommendation 1. **At the present time, the Federal Government should not attempt to influence physician manpower supply in the aggregate.**

Recommendation 2. **The number of first-year positions in GME should not be used to reduce the supply of licensed physicians in the aggregate; rather, if steps are taken to reduce physician supply, the reduction should take place in entering medical school class size.**

In contrast to its recommendation that the Federal Government should not attempt to influence the aggregate supply of physicians at the present time, the Council recommends that the Government should develop policies dealing with certain specific problems in the physician manpower area. These physician manpower concerns relate to location of services provided, the representation of minorities in medicine, specialty distribution, and quality of care.

Recommendation 3. **The public and private sectors should focus their efforts on influencing clearly identified problems such as the geographic maldistribution of physicians, the continued underrepresentation of minorities in medicine, specialty shortages, and concerns regarding quality of care.**

These concerns and resulting conclusions and recommendations are dealt with later in the report.

B. GEOGRAPHIC DISTRIBUTION OF PHYSICIANS

Although the legislation authorizing the Council does not explicitly make reference to the geographic distribution of physicians, a consensus on this subject was reflected in the consultations and testimony received by the Council.

CONCLUSION B-1. THERE IS A GEOGRAPHIC MALDISTRIBUTION OF PHYSICIANS, WITH TOO FEW PHYSICIANS IN MANY RURAL AND INNER-CITY AREAS.

An examination of physician-to-population ratios utilizing data provided by the American Medical Association indicates substantial variation among geographic areas." In 1985 the ten States with the lowest physician-to-population ratios had a weighted average of 145 physicians per 100,000 people, or one-half of the weighted average of the top ten States. This variation extended to urbanization and population size of area as well. Metropolitan areas of the country had over 125 percent more patient care physicians per 100,000 people than did nonmetropolitan areas. Furthermore, in 1985-86, for example, metropolitan areas with a population exceeding 5 million had over 300 physicians per 100,000, while nonmetropolitan areas with fewer than 10,000 population had only 51 physicians per 100,000.

Trend data indicate greater percentage increases in the number of patient care physicians in the larger communities. Over the period 1970-86 patient care M.D.s increased at a greater rate in metropolitan areas (79 percent) than in nonmetropolitan areas (47 percent). Indeed, the number of M.D.s in general and family practice in nonmetropolitan areas actually declined by 3 percent between 1970 and 1986, while increasing 10 percent in metropolitan areas in this period. The least populated nonmetropolitan counties (0-25,000 people) between 1975 and 1985 exhibited smaller percentage increases in their ratios of physicians to population than the larger nonmetropolitan area counties.

There is diversity in the distribution of physician specialists: in 1986, for example, 30 percent of the general and family practitioners in office-based practice were located in nonmetropolitan areas whereas only 12 percent of the remaining office-based patient care M.D.s were located in these areas.

As of March 1988, there were nearly 2,000 Primary Care Health Manpower Shortage Areas (HMSAs) as defined by the DHHS. The population in those areas numbered over 33 million. Over 4,100 additional practitioners would be needed in those areas to eliminate the shortage designations. Notwithstanding the generally higher ratios found in metropolitan areas, DHHS has

estimated that 57 percent of the practitioners who are needed to remove the HMSA designation would be needed in metropolitan areas, suggesting that maldistribution also exists in urban areas.[28]

Other than the data gathered through the HMSA program it is difficult to find and interpret physician data below the county level. There is no certainty that physician numbers alone or their proximity to underserved populations will assure enhanced access to medical care for those who are geographically isolated or economically deprived. There may be poorly understood attitudinal, socioeconomic, or organizational factors which may adversely affect access to services. Nevertheless, one study of the physician distribution in nine U.S. cities found that:

1) In 1980 the number of patient care physicians per 100,000 people was substantially lower in the poverty areas of the cities than in the nonpoverty areas;
2) The increase in patient care physicians relative to population between 1963 and 1980 was substantially lower in the poverty areas (21.8 versus 38.0 percent);
3) The number of office-based physicians per 100,000 population declined in the poverty areas, but increased in the nonpoverty areas (-6.5 versus 14.9 percent); and
4) While the numbers of office-based primary care physicians per 100,000 people declined in both areas of the cities, the decrease was much greater in the poverty areas (-45.1 versus -27.4 percent).[29]

CONCLUSION B-2. WHILE THERE CONTINUES TO BE AN INADEQUATE NUMBER OF PHYSICIANS IN MANY RURAL AND INNER-CITY AREAS, THIS PROBLEM IS NOT AS SEVERE AS IT HAS BEEN IN THE RECENT PAST AND MAY WELL BE AMELIORATED, AT LEAST IN PART, AS THE OVERALL SUPPLY OF PHYSICIANS INCREASES.

According to three studies by the Rand Corporation in the last few years, increases in the aggregate supply have been associated with a diffusion of some specialists to smaller communities.[30-33] One study found that the percentage of small and medium-sized communities with board-certified specialists increased substantially between 1960 and 1977; specialists moved into towns previously unserved by their specialties as their numbers increased throughout the 1970s. The extent to which each specialty moved into previously unserved towns varied directly with the growth experienced by that specialty in its total supply. Data also indicated that by 1979, only a handful of towns with a population of 2,500 or more were farther than ten miles from a physician, that 98 percent of the U.S. population resided within 25 driving miles of a general/family practitioner, and that 80 percent lived within 20 straight-line miles of an internist, surgeon, pediatrician, and obstetrician/gynecologist.

Despite this information, it is difficult from these studies to draw conclusions about changes in the total supply of physicians in an area. For example, if a town lost two of its three general practitioners but gained an internist, it would show evidence of the diffusion of internists even though the net result was a decrease in the supply of physicians. Other studies were found to document the loss of physicians in certain areas.

CONCLUSION B-3. MALDISTRIBUTION REMAINS A SERIOUS AND COMPLEX PROBLEM, REQUIRING SOLUTIONS MORE BROADLY BASED THAN THOSE FOCUSING EXCLUSIVELY ON MEDICAL EDUCATION.

What may be concluded from recent findings on geographic distribution is that while there has been diffusion of physicians into less densely populated areas and access has improved in many of these areas, the existence of nearly 2,000 HMSAs shows that many rural and urban areas still remain unattractive to physicians for both economic and lifestyle reasons and continue to be underserved. The Council also notes with interest the testimony provided at its public hearing that there continues to be a serious problem of geographic maldistribution of physician services.

A recent study of the factors influencing the location and practice patterns of young physicians who recently settled in rural areas found that between 1975 and 1979, 60 percent of the nonmetropolitan counties studied failed to gain young physicians (under the age of 35) practicing primary care.[33] Thirty percent studied had no young physicians in either 1975 or 1979. Only 21 percent of counties with fewer than 10,000 people gained young physicians, compared with 61 percent of counties with 25,000 or more people.

The characteristics of counties in which young physicians located were compared with the characteristics of counties which failed to attract them. Significant differences were identified: the counties gaining young physicians tended to have a larger population, higher population growth rates, greater population density, a better educated populace, higher income, less agriculture, and more health resources. In addition, the presence of a college or university, greater white collar employment, and a smaller farm population were factors which were associated with the ability of nonmetropolitan counties to attract young physicians.

There have been many successful programs initiated by both government and the private sector to address this issue. There is some evidence, for example, that selective medical school admission policies may improve the geographic distribution of physicians. Selective admissions have been used to increase the likelihood that medical students will choose to practice within a State or in an underserved area of a State by granting preferential admission treatment to in-State residents or applicants with particular backgrounds or personal characteristics.

Preceptorships have also been used with effect and have been aimed at changing the educational environment to stress the positive aspects of primary care practice and practice in underserved areas. Moreover, research findings have suggested that the frequency and recentness of a medical school graduate's contact with a specific geographic area influence the probability of practice in the area. Decentralized medical education programs such as WAMI (in Washington, Alaska, Montana, and Idaho) and WICHE (Western Interstate Commission for Higher Education) have been found to be effective in developing coordinated medical education and placement programs in relatively isolated and sparsely populated regions.

During the latter part of the 1970s, physician scholarship programs for shortage areas grew; one study found that in the early 1980s, the majority of States had such programs.[34] Students received financial aid in return for a commitment to practice in the State, usually in an underserved area. Moreover, there have been indications of some success on Federal and State levels of loan forgiveness programs designed to attract physicians into underserved areas, with instances of respectable retention rates beyond the period of contractual service.[35]

The National Health Service Corps (NHSC) program has attempted to alleviate geographic maldistribution problems by increasing access to primary care medical services in HMSAs. Several studies describing the achievements of this program were found in the literature. In addition, there is evidence that Area Health Education Centers have been effective in inducing physicians to practice in underserved areas and/or to practice primary care.[36]

It has been argued that the present reimbursement systems (Federal, State, and private) have tended to sustain historical differences in fees and incomes among geographic areas and to provide incentives for physicians to locate in high-income communities.[37] Recent Federal legislative actions may reduce the disincentives for physicians to locate and practice in rural areas by providing enhanced Medicare reimbursement to rural physicians.

Notwithstanding the success of many existing programs to address this issue, the Council notes that such programs have not worked uniformly well for all geographic areas. In some instances, the effectiveness of programs appears to have been limited by community characteristics which are unattractive to young physicians such as depressed local economies, professional isolation, lack of cultural or recreational amenities, and appropriate hospital and other medical facilities to attract physicians.

The Council has concluded that effective solutions to the maldistribution issue cannot be provided solely by medical education. The problems are sufficiently complex to underscore the need for new as well as continuing approaches. As an example of a new approach, the DHHS's creation of a new Office of Rural Health Policy offers a welcome opportunity to transfer the experience of successful programs and facilitate innovative approaches to meet the needs of residents in rural communities. The recent rural health medical education demonstration projects authorized by the Fiscal Year 1988 Budget Reconciliation Act represent another useful approach to address this problem.

Recommendation 4. **Existing activities that increase the likelihood that physicians will locate and remain in shortage areas should be continued and strengthened, such as:**

a. recruitment and selection of allopathic and osteopathic medical students who are likely to locate in shortage areas;

b. medical school programs including preceptorships in shortage areas;

c. student financial support, such as loan repayment in exchange for service;

d. practice incentives (e.g., differential reimbursement, community support); and

e. existing Federal and other programs such as the NHSC, to meet the needs of the underserved communities.

Recommendation 5. **More research and evaluation should be conducted on factors relating to the geographic distribution of physicians and their services to assure that a broad range of existing and new strategies is directed to this complex problem.**

C. MINORITY REPRESENTATION IN MEDICINE

There is a clear consensus that the underrepresentation of most minority groups in medicine is a continuing national concern. Participants at the Council's public hearing repeatedly commented on the link between the recruitment and involvement of minorities in medicine and the national goals of meeting the health care service needs of underserved communities and affirmative action. Concern was expressed about the implications of recent trends and patterns of minority enrollment in medical school on the availability of services to the poor.

CONCLUSION C-1. MINORITIES ARE STILL UNDERREPRESENTED IN THE PHYSICIAN MANPOWER POOL IN THE UNITED STATES.

Today, most minority groups continue to have low representation in medicine. Blacks account for 3 percent of all physicians, compared with 12 percent of the national population. Hispanics and Native Americans are 7.2 and 0.6 percent, respectively, of the general population, but currently constitute less than 3.4 and 0.1 percent, respectively, of the physician pool. Furthermore, minorities are underrepresented in leadership positions and in the general membership of national, State, and local medical organizations, in medical specialty societies, and among biomedical research scientists. Although their numbers have grown, minorities continue to be inadequately represented among medical school deans, faculty, and medical school applicants and enrollees.

As the size of the physician pool increased between 1975 and 1985, the number of Black physicians doubled and the number of Hispanic and Native American physicians tripled. Significant underrepresentation continues, however, in comparison with their proportional composition in the U.S. population. Furthermore, based on current demographic trends, this imbalance is likely to worsen.

CONCLUSION C-2. IT IS HIGHLY DESIRABLE TO INCREASE MINORITY REPRESENTATION IN THE MEDICAL PROFESSION FOR TWO REASONS:

- *TO ENSURE THAT MINORITIES HAVE EQUAL ACCESS TO A CAREER IN MEDICINE.*
- *TO ACHIEVE EQUITY IN HEALTH CARE SERVICES.*

One of the Council's areas of concern is the principle of equity and equal access to a career in medicine for each of the ethnic and racial groups that compose the American people. The Council has a similar concern about the availability of adequate health services to underserved communities in relation to increasing the representation of minorities in medicine.

Minority physicians are more likely than others to practice the primary care specialties, and they provide a greater proportion of health care for medically underserved populations than other U.S. physicians. The results of a recent study have shown that disproportionately higher percentages of Black American and Mexican American physicians involved in direct patient care chose to practice the primary care specialties, and these physician groups located their practices in HMSAs at twice the rate of their nonminority counterparts. They also provided health care for significantly more ethnic minority patients and Medicare patients than did nonminority physicians. The study concluded that minority physicians have helped to alleviate imbalances in health care availability by increasing minority access to health care and by providing health care in medically underserved areas.[43]

According to the 1985 DHHS Secretary's Task Force on Black and Minority Health, the availability of well-trained health care providers for minority populations may be crucial in reducing the disparities identified between the overall health status of minority and nonminority groups. The Task Force report stated that other studies had indicated that "health professionals who are from the same cultural background as their patients may be able to communicate better with their patients and thereby have a positive influence on their health outcome." It recommended increasing the number of Blacks and other minorities in the medical profession.

A concerted effort in this area involves the adoption of multiple strategies. First, overall success is hampered by the number of qualified underrepresented minorities initially entering college and later qualifying for admission to medical school. Attention needs to be focused on broadening the general applicant pool, which means that efforts at the high school level may be as important as recruitment and other activities conducted at later stages of the educational continuum.

Commitment and action are needed at all stages of the educational process. Increasing the numbers of underrepresented minorities who practice medicine as well as those holding faculty positions in medical schools continues to be essential in providing the appropriate role models for minority students.

The Council notes with concern the issues of increasing medical education costs and indebtedness which have had a disproportionately greater impact on underrepresented minority medical students. It believes that continued special attention in this area is warranted because a higher percentage of minority than majority students come from low-income families.

Recommendation 6. **Creative and expanded efforts need to be undertaken by government, private industry, and the educational community to increase the number of underrepresented minority applicants qualified to enter and complete a medical education. This requires vigorous and aggressive efforts at both the high school and college level.**

Recommendation 7. **Successful minority recruitment programs should be examined to determine the reasons for their success so as to replicate and implement them in other medical schools. Medical schools should strengthen their recruitment programs by identifying qualified underrepresented minority students and establishing programs funded by public and private sources to support activities that will increase such students' interest in a career in medicine.**

Recommendation 8. **Medical schools should have programs to reduce attrition as well as increase recruitment of minority students. Those schools which presently do not have successful programs should direct their attention to and make use of information from those programs which have successfully reached these goals. High priority for public and private funding should be given to those recruitment and retention programs which have achieved success and to programs demonstrating new and innovative approaches.**

Recommendation 9. **Existing financial assistance programs should be strengthened by adopting a balanced strategy of scholarships, loan interest subsidies, and loan repayment programs to limit medical school debt and to encourage schools to seek ways of reducing educational costs to students, particularly low-income and underrepresented minority students.**

Recommendation 10. **To expand the number of underrepresented minorities in faculty positions at U.S. medical schools, Federal, State, and local governments should develop programs of financial support.**

Private foundations should be urged to support programs enhancing minority representation in academic medicine. Those foundations currently so involved should be applauded and encouraged to increase their efforts.

Recommendation 11. **To provide minority students with the opportunity for training in the full range of medical specialties, GME program personnel should be encouraged to develop and implement affirmative action policies. In addition, such GME program personnel should be encouraged to provide appropriate role models for these trainees.**

D. PRIMARY CARE AND OTHER PHYSICIAN SPECIALTIES

The Council has focused its first report on the primary care specialties targeted by Title VII of the Public Health Service Act (i.e., family practice, general internal medicine, general pediatrics, and osteopathy), with some attention given to the areas of geriatrics and preventive medicine. Although public testimony was received from other physician specialty organizations, the Council has chosen to defer detailed consideration of these areas until its next report to the Secretary and the Congress. Data limitations and time constraints precluded studying the other specialties at this time.

Since 1980, assessments of the adequacy of physician supply by specialty have been limited. In many instances, analyses of trends in the physician supply by specialty as well as trends in the number of physicians in GME programs by specialty have

been the principal sources of information. Section J speaks to these shortcomings in available data and analyses.

CONCLUSION D-1. THERE IS EVIDENCE OF AN UNDERSUPPLY OF CERTAIN PRIMARY CARE PHYSICIANS TOGETHER WITH AN OVERSUPPLY OF SOME NONPRIMARY CARE SPECIALISTS.

Data provided by the American Medical Association [37] indicate that while the growth in primary care physicians has outpaced the growth of the general population, the supply of primary care allopathic physicians has grown more slowly than the supply of all other allopathic physicians. These trends are expected to continue, in view of the age distribution of primary care physicians, specifically the large numbers of older allopathic physicians in general practice. The number of osteopathic physicians, in contrast, is expected to rise at a pace sharply higher than that likely to be experienced by allopathic physicians. Recent data provided by the American Osteopathic Association indicate that as of 1986, 47 percent of practicing osteopathic physicians were in general practice and another 5 percent were in general internal medicine.[38] Since 1981, there has been only a modest increase in the number of residents in allopathic postgraduate training in family practice, general internal medicine, and general pediatrics.

If this trend continues, the Council notes that the projected number of physicians in primary care GME programs will be considerably lower by 1990 than what was projected for that year by the GMENAC. GMENAC projected that the number of primary care physicians in 1990 would be adequate for the need. Consequently, conclusions of undersupply may indeed be warranted because recent analysis indicates that the supply of primary care practitioners will not grow as fast as projected by GMENAC.

In a recent survey of all States regarding physician manpower issues, a deficiency of primary care physicians and an excess of specialists were viewed as the most important problems of current concern.[39] At the Council's public hearing, many organizations testified to the need for promoting continued or increased emphasis on primary care skills to meet societal needs. The Council notes with interest that the United States, compared with Canada, has nearly twice as many nonprimary care physicians and about 20 percent fewer primary care physicians per unit of population.

CONCLUSION D-2. THERE IS AN UNDERSUPPLY OF PHYSICIANS IN FAMILY PRACTICE.

The Council reviewed several sets of testimony on the demand for family physicians and their practice patterns. It also examined supply trends and analysis made by staff of BHPr as well as from the American Medical Association Council on Long Range Planning and Development.[40] As a result of this review, the Council is persuaded that given the current demand for the services of family physicians, the supply is inadequate and will remain so without deliberate efforts to train more physicians in this specialty.

Family physicians continue to locate in rural and other shortage areas in notably larger proportions than do other medical specialists. Their multidisciplinary training permits them to care for most problems presented in their offices and to adapt to the diverse needs presented in various geographic areas. The demand for family physicians is significant and increasing; the growth in geriatric health care as well as managed care systems including HMOs is an important factor accounting for increasing demand.

Concurrent with this increasing demand for family physicians is a supply unable to keep pace. The number of family practice residency programs, which experienced tremendous growth from the inception of the specialty in 1969 until 1982, has now leveled off at approximately 382, with about 2,500 first-year residents. With more than one out of three family physicians/general practitioners aged 55 years and older, attrition from practice for this discipline is expected to be high in the next 10 to 15 years. Indeed, BHPr projects the supply of family physicians and general practitioners to grow between 1986 and 2020 at a considerably slower pace than for total active allopathic physicians (33.3 versus 45.1 percent).

CONCLUSION D-3. THERE APPEARS TO BE AN IMPENDING UNDERSUPPLY OF PHYSICIANS IN GENERAL INTERNAL MEDICINE.

The Council reviewed testimony and an analysis of supply trends of physicians in general internal medicine. It particularly notes with great interest a recent study completed by Lewin and Associates, Inc., conducted for the Federated Council for Internal Medicine.[41] This effort attempted to update earlier GMENAC projections for internal medicine. Adjusting for increasing patient care needs due to the AIDS epidemic, changes in physician productivity by gender, and other adjustments based on more recent data on population growth, the study concluded that if current trends continue, increasing shortages will result each year for general internists, while most other subspecialists in internal medicine will be in surplus.

In some areas, it appears that the boundaries of the practice of family medicine and general internal medicine practices are rapidly merging.

CONCLUSION D-4. AT PRESENT THERE IS AN ADEQUATE SUPPLY OF PHYSICIANS IN PEDIATRICS. GIVEN CURRENT HEALTH CARE POLICY REGARDING INSURANCE COVERAGE FOR CHILDREN, THERE WILL BE AN OVERSUPPLY OF PEDIATRICIANS IN THE YEARS AHEAD. IF, HOWEVER, HEALTH CARE COVERAGE IS EXTENDED TO THE SUBSTANTIAL NUMBERS OF CHILDREN WHO NOW LACK IT, THE FUTURE SUPPLY OF PEDIATRICIANS COULD RAPIDLY BECOME ONLY ADEQUATE OR EVEN INADEQUATE.

This conclusion also reflects the Council's consideration of information and testimony provided to it. Over the past 20 years, the total number of pediatricians has doubled. At the same time, the age group served by pediatricians has diminished significantly. The Council recognizes that the adequacy of pediatric manpower could be significantly affected by changes in national health policy which broaden insurance coverage for children. While this would be true for other specialties as well as pediatrics, a view exists that broadened insurance coverage for children would have a greater impact on this specialty.

CONCLUSION D-5. ADDITIONAL EMPHASIS IS WARRANTED IN THE GENERAL AREAS OF GERIATRICS AND PREVENTIVE MEDICINE.

The Council is cognizant of the *Report to Congress on the Personnel for Health Needs of the Elderly Through the Year 2020*, including its review of the adequacy and availability of personnel prepared to meet current and projected needs of elderly Americans through the year 2020.[43] The Council believes that continued support and expansion of geriatric medical training are clearly warranted in the light of demographic trends and medical needs of the elderly. The Council has not taken a position at this time regarding particular training pathways into geriatric medicine, but is simply endorsing the need for more emphasis on increasing the supply of manpower in geriatrics.

The field of preventive medicine includes public health, general preventive medicine, occupational medicine, and aerospace medicine. From the testimony received, the Council is persuaded that the earlier GMENAC assessments of shortages in this area remain valid, particularly in light of growing public concern about environmental health and occupational risks. There has been no increase in the number of training programs since 1981, and the number of qualified applicants appears to be about four times the number of training positions available.

The Council received testimony from a number of other individual specialty groups calling for recommendations to remedy impending shortages in their disciplines (e.g., general psychiatry, child and adolescent psychiatry, and emergency medicine). It received a written statement from the American College of Obstetrics and Gynecology concerning the impact of medical liability on the supply and practice of its represented specialties. Information was provided on recent trends in surgery residencies that questions generalizations often made regarding an oversupply of nonprimary care physicians. These issues will be dealt with in more detail in the next Council report.

> *Recommendation 12.* **Allopathic and osteopathic medical school graduates should be strongly encouraged to enter training in primary care, particularly in family practice and general internal medicine. The general areas of geriatrics and preventive medicine should also be emphasized.**

(NOTE: Financing recommendations that are relevant to primary care and geriatrics are presented in the next section on pages 20, 21, and 22.)

E. FINANCING GRADUATE MEDICAL EDUCATION

Available information leads the Council to believe that there is progressively less willingness on the part of payers to support the costs of GME. In recent years, pressures have become more intense on educational expenditures as the result of attempts to moderate increases in health care costs through increased negotiating and other practices adopted by industry and increased regulatory activities of government. This trend is expected to continue, with no substitute sources for the financing of GME becoming evident. With business increasingly concerned with the costs of fringe benefits and government increasingly working to reduce budget deficits, GME has become one of the vulnerable targets of negotiations to lower health costs.

CONCLUSION E-1. SUPPORT FOR THE FINANCING OF GME IS ERODING AS PAYMENTS FOR PATIENT CARE ARE CONSTRICTED. SUBSTITUTE SOURCES ARE NOT DEVELOPING TO TAKE THE PLACE OF PATIENT CARE REIMBURSEMENTS.

Overall trends in total payments for GME are not clear. As noted earlier in the Overview of Medical Education, national data on total payments for GME are lacking, although the amount paid for GME by Medicare has continued to increase. Information and trends in GME payments from private payers are not available, because they generally do not separately identify GME in their overall payments for health care.

The Council recognizes that there is an issue of the extent to which costs of medical education are a cost of education versus a cost of medical services. Studies have shown that residency training involves education, service, and to some extent, research. Often these components cannot be clearly separated. One study found that about 65 to 70 percent of a resident's time was service and another 17 percent was service plus teaching. Most of the remainder was education.[44] The Council also recognizes that intern and resident salaries and fringe benefits make up only a part of what is currently reimbursed as "direct costs" under Medicare. There is some evidence, however, that the value of intern and resident services at least equals the costs of their salaries and fringe benefits, raising a question about whether an education component is even reimbursed. The Council believes that the forgone income of the resident may represent his or her contribution to the education component.

An examination of major alternative methods of financing GME was undertaken by the Council. The possibility of funding residents' stipends and benefits from faculty practice plans (FPPs) was reviewed, but the amounts required were found to exceed the estimated income of these plans. A voucher system was considered but was felt not to be workable in the absence of a mechanism to collect separate funds from the large number and variety of payers and to make distributions of these funds to institutions engaged in residency training. There would also appear to be a consequent need for centralized decisions on specialty numbers in particular residencies. Accordingly, the Council sees no feasible alternative for the financing of GME to the present system and believes that it continues to be the most desirable method.

The Council believes that until further data and analyses are available on the effect of reduced payments on teaching hospitals and GME training programs, aggregate payments for GME should be maintained at current levels and direct costs should continue to include all expense categories currently allowed. Nevertheless, a request was made by congressional staff during consultations with the Council for a recommendation of what items should be protected should it become necessary to reduce direct costs of GME. With this in mind, the Council believes that the following areas should be sheltered from the effect of any reductions in direct cost support:

- Resident stipends and fringe benefits
- Training in primary care specialties in short supply
- Training in geriatric medicine
- Training in preventive medicine
- Quality programs in underserved communities
- Training of minorities

Recommendation 13. **Funds to finance GME should continue to come from present sources. The Council recommends against making any major and/or precipitous changes in the way in which GME is financed. If changes are made in the way that GME is financed, they should take place gradually.**

Recommendation 14. **Except as modified by later recommendations, Medicare payments for direct costs of GME should continue to utilize existing sources, conduits, and recipients.**

Recommendation 15. **Until further data and analysis are available on the potential effect of reduced Medicare GME payments on teaching hospitals and training programs, the Council recommends that (1) the aggregate level of payments for GME be maintained at current levels and (2) payments for direct GME costs continue to include all expense categories currently allowed.**

During 1988-89, the Council will assign high priority to a comprehensive review and analysis of Medicare GME payments and may make additional recommendations in an interim report.

Recommendation 16. **The Council places the highest priority on reimbursement of residency training stipends and fringe benefit costs, training in those primary care specialties which are in short supply, training in preventive medicine and geriatrics, support of quality GME programs in underserved communities, and support for the training of minorities. If reductions are made in the reimbursements for the direct costs of GME, these areas should be sheltered from the impact.**

CONCLUSION E-2. GME IN AMBULATORY SETTINGS IS INCREASINGLY NECESSARY IN MANY SPECIALTIES FOR OPTIMAL TRAINING AND PREPARATION FOR PRACTICE.

During the public hearing and at many other sessions of the Council and its subcommittees, extensive testimony was presented on the importance of training in ambulatory settings as part of GME. Problems incurred by the present financial incentive structure for ambulatory training were also highlighted.

Patients are increasingly receiving their health care in ambulatory settings, and inpatient hospital use is declining. As inpatient hospitalization has become increasingly abbreviated, more patient care and decision making take place outside of the hospital. Several specialties such as family practice, pediatrics, and dermatology historically have been oriented to ambulatory practice and training, and other specialties such as ophthalmology and neurology are increasingly moving their practice and graduate training from hospital inpatient settings to ambulatory settings. A higher proportion of surgical operations is being performed outside the hospital, and surgical training is following this shift in practice.

Recommendation 17. **The Council believes that a concerted emphasis on training in ambulatory settings is warranted.**

CONCLUSION E-3. THERE ARE DIFFICULTIES IN FINANCING GME IN AMBULATORY SETTINGS, RELATED TO LOWER LEVELS OF PAYMENT BY THIRD PARTIES AND TO INCREASED LOGISTICAL PROBLEMS IN TEACHING. THE CURRENT FINANCING OF GME RESULTS IN DISINCENTIVES FOR AMBULATORY TRAINING.

With few exceptions, the overall patterns of ambulatory care reimbursement tend to discourage GME in ambulatory settings. In general, there tends to be less third-party coverage of the population for ambulatory care. Third-party plans usually do not cover certain services typical of ambulatory care, such as prevention or counseling. Payment levels are frequently lower for similar or identical services when provided in ambulatory settings compared with inpatient settings. Historically, requirements that patients share a portion of payments for services have tended to be greater for ambulatory services, reducing the amount of third-party income to the outpatient setting. In addition, many outpatient clinics provide care to individuals who have no insurance.

With respect to financing GME specifically in ambulatory settings, Medicare has always included hospital outpatient departments in determining direct and indirect payments. Currently, Medicare reimburses outpatient GME costs at the same rate as inpatient costs. In addition, the OBRA of 1986 provided for the inclusion of interns and residents assigned to nonhospital settings in a teaching hospital's direct medical education count if the hospital incurs all or substantially all of the training costs (this had not been implemented at the time of the report).

There are problems in education in ambulatory settings compared with inpatient settings. Teaching in ambulatory settings is more inefficient and costly because of increased time demands on faculty and other staff in relation to the volume of care delivered, and the time spent by patients in receiving care is greatly increased as well. There is usually insufficient space for conferences and small group discussions in clinics, and there are few incentives to build adequate teaching space there.

Thus, teaching in ambulatory settings may be economically disadvantageous in competitive environments. By contrast, patient time and the volume of patient services are less affected by teaching in inpatient facilities, and result in a less adverse effect on revenues relative to costs. Costs of teaching are further increased when medical student as well as resident education is involved.

Expert presentations before the Council provided frequent indications that education in an ambulatory setting is increasingly vital at both the medical student and the resident levels to properly prepare physicians to meet today's patient care needs. The hospital inpatient setting is becoming less relevant as the primary site and source of patients for teaching, while ambulatory sites, many of which are not necessarily tied to hospital settings, are

assuming greater relevance to both practice and training. However, funding for GME is provided almost entirely through hospitals, largely from payments for inpatient services. It is very difficult for ambulatory facilities and entities other than those owned or operated by hospitals to secure financing for the additional costs of operating in the presence of a teaching program. Unless they operate their own hospitals, entities such as HMOs find it difficult to obtain financing for the added direct and indirect costs of medical education in ambulatory settings.

One approach considered by the Council was the development of a direct and indirect cost methodology for teaching in ambulatory facilities. The Council believes that this idea has merit, but recognizes the lack of a data base for determining such costs in ambulatory teaching settings.

The Council received a number of recommendations that financing of GME be less tied to inpatient hospital care. It concluded that, rather than routing all GME financing through hospitals, there should be an available alternative that provides such financing directly to an approved program whose sponsor is not a hospital. In considering this, the Council recognizes that teaching hospitals are an essential component of any residency program and that the bulk of training in all specialties, including primary care, will remain in hospitals. Nevertheless, the Council believes that the availability of appropriate financing to ambulatory facilities is necessary to move medical education into settings that most appropriately prepare medical students and resident physicians to meet current patient care needs. Demonstration efforts may be a desirable means of testing various approaches to meeting this goal.

The Council does not intend its recommendations in this area to increase the costs of GME through "add-on" payments. Rather, it recommends a redistribution of current GME payments to include ambulatory settings not sponsored by hospitals.

> *Recommendation 18.* **To facilitate the expansion of ambulatory/outpatient GME, and to encourage innovative program development and growth, all approved GME programs, including those based in ambulatory/outpatient settings, should be eligible for Medicare GME reimbursement. A methodology for reimbursement of direct and indirect costs for ambulatory training should be developed.**

> *Recommendation 19.* **Medicare and private organizations should carryout demonstrations of alternative methods of payment for GME in ambulatory and other nontraditional settings. It may be necessary to consider differential payment incentives to encourage and facilitate medical education in ambulatory and long-term-care sites.**

CONCLUSION E-4. THE FINANCING OF GME IS PARTICULARLY PROBLEMATIC FOR THE AREAS OF PRIMARY CARE, GERIATRICS, AND PREVENTIVE MEDICINE.

The information available on financing residency training programs, although limited, strongly suggests problems in supporting GME in the primary care specialties, especially family medicine. Each of the major sources of financing for family medicine residency programs—physician services to patients, hospital support, and public dollars—provides about one-third of training program revenues.[45] Revenues from physician services are very unlikely to exceed one-third of program costs, and hospitals are unlikely to pay a bigger share because primary care programs do not generate much revenue for them. In addition, there are notable variations among family practice residency training programs in the amount of income from each of these sources, which further suggests uncertain patterns of financing for this specialty.[46] For these reasons, given current financing arrangements, it appears likely that a substantial portion of support for family practice programs will have to continue to come from State and Federal sources.

Title VII of the Public Health Service Act provides for Federal grant funds to help support primary care residency training programs in family medicine, general internal medicine, and general pediatrics. As noted above, family medicine relies to a significant degree on financial assistance from the Federal Government. However, State government funding is especially critical to family practice training in many States. The Council is persuaded that expanded Federal and State funding is necessary to the continued stability, let alone growth, of primary care training programs, and that neither the States nor the Federal Government should reduce their efforts at this time.

Information available from general internal medicine and general pediatrics also suggests that these specialties have similar difficulties in financing the primary care portion of their residency programs.[47],[48]

The Council also reviewed evidence of problems in financing geriatric medical training. Medicare does not appear to be a major source of financing for geriatric training, even though Medicare pays substantial amounts for GME. Particular difficulties in financing geriatrics appear to derive from the financing of training in settings outside the hospital and from the lack of a factor in teaching physician reimbursement for the amount of time spent in providing lengthy nonprocedural services.[49]

Similarly, residency programs in the general area of preventive medicine, including public health and occupational medicine, are not based in hospitals and must find their financing elsewhere. According to testimony presented to the Council at its public hearing, the lack of stipends to pay residents' salaries represents the main reason that the number of training positions in preventive medicine is one-fourth the number of qualified applicants.

CONCLUSION E-5. THE PRESENT SYSTEM OF HEALTH CARE FINANCING DECREASES THE ATTRACTIVENESS OF CERTAIN DISCIPLINES TO STUDENTS, AND PRESENTS INCENTIVES WHICH TEND TO PRODUCE A CONCENTRATION OF PHYSICIANS IN WHAT MAY BE OVERSUPPLIED SPECIALTIES. THESE INCENTIVES ARE THE RESULT OF (1) DIFFERENTIALS BY SPECIALTY IN REIMBURSEMENTS TO PHYSICIANS FOR SERVICES APART FROM MEDICAL EDUCATION PAYMENTS AND (2) DIFFERENTIALS BY SPECIALTY IN

BENEFITS TO HOSPITALS FROM INPATIENT HOSPITALIZATION AND THE USE OF OTHER HOSPITAL SERVICES.

Higher reimbursements are made to physicians and therefore faculty in specialties that emphasize procedural services and inpatient care. Primary care programs, in contrast, emphasize nonprocedural skills and frequently use ambulatory settings for the great preponderance of patient care. The Council recognizes that because payments to faculty for physician services are an important component of financing faculty and departments, those departments with more highly reimbursed faculty are at a relative advantage in program financing. In addition, the present financing system decreases the attractiveness of the primary care disciplines. It is a concern of the Council that fewer students wish to enter them because of this.

Similar differentials among specialty training programs produce different incentives for hospitals to finance them. Information presented to the Council suggests that the amount of teaching hospital revenues generated per resident is substantially less for family practice programs than for departments of internal medicine or pediatrics, and much less than for departments of surgery."

The Physician Payment Review Commission (PPRC) has recommended changes that move physician reimbursement toward a realignment of relative values for different services. The PPRC recommended to the Congress that, if the annual increase in Medicare fees under the Medicare Economic Index (MEI) was to be reduced, primary care services should be exempted from the reduction. It emphasized that this would change relative payments in a direction that it advocates for long-range reform. It also recommended reductions in prevailing charges allowed by Medicare for selected procedures judged to be overvalued relative to other procedures.

Following this recommendation, Congress in the OBRA of 1987 enacted provisions consistent with PPRC recommendations that resulted in relative increases in payments for primary care services. It provided that, on or after April 1, 1988, prevailing charge limits would be increased 3.6 percent for primary care services and 1 percent for other physician services (primary care services were defined in the legislation conference report as medical visits in the office, emergency department, home, long-term-care facility, etc.). It also provided for a further 3 percent increase for primary care services and 1 percent for other physician services effective January 1, 1989.

As this trend changes the relationship of total compensation for primary care physicians to the compensation for nonprimary care physicians, the Council believes that a higher proportion of medical students will be attracted to the primary care residencies. Because the changes are small, however, it will take several years of such changes before the incentives are significant.

For GME financing, a long-range shift toward upward weighting of the relative value of primary care services should result in a relative improvement in the portion of residency program financing that comes from payments for attending physician services, as well as make the primary care disciplines more attractive to students and residents. As noted above, one-third of family medicine program financing comes from payments for physician services. Although the proportion of program financing through teaching physician revenues is not known for other specialties, information available to the Council suggests that for many of them the amount of revenue generated by teaching physicians is considerably higher.

The Council notes with favor the existence of organized private sector support for primary care residency programs. Currently some family practice residency programs have arrangements with large corporate entities to accept philanthropic donations to support the training programs in a variety of ways, such as funds to build and maintain a named family practice center and endowment funds for faculty positions.

In addition, some training programs have capitated care contracts with HMOs and other forms of managed health care companies to provide funds for direct services and case management. In many instances, these contracts also enhance residency revenue.

Recommendation 20. **Primary care, preventive medicine, and geriatric training programs should be encouraged.**

a. It is necessary to continue and expand Federal, State, and private sector support for these programs.

b. Existing Title VII primary care grants and other support for primary care programs should be expanded.

Recommendation 21. **The Council supports the recommendation of the Physician Payment Review Commission that primary care physician services be granted greater Medicare fee increases than other physician services, as a change in direction of relative payments to physicians that the Commission advocates for long-range reform.**

F. MEDICARE FINANCING OF DIRECT AND INDIRECT COSTS OF GRADUATE MEDICAL EDUCATION

HCFA estimates that in 1988 Medicare will spend $975 million on direct costs for GME (total Medicare direct cost expenditures are $1.3 billion when nursing and allied health education costs are included). Direct costs include resident salaries and fringe benefits; teaching physician costs; and costs of equipment, supplies, and allocated overhead. The indirect medical education (IME) adjustment covers increased operating costs of teaching hospitals associated with the presence of a teaching program. HCFA estimates it will spend approximately $2.02 billion in indirect teaching adjustments in 1988. No national estimate is available of the total of such expenditures from all payers.

CONCLUSION F-1. THERE REMAIN UNEXPLAINED, SUBSTANTIAL VARIATIONS AMONG HOSPITALS IN PER-RESIDENT DIRECT COSTS.

Direct costs of GME have been reimbursed by Medicare as "reasonable costs." However, effective July 1, 1985, the COBRA legislation changed the method by which Medicare pays hospitals for the direct costs of GME, from cost reimbursement to formula determination (these provisions have not yet been implemented).

Under the earlier reasonable cost method, hospitals were paid net costs of the training program, including the costs to the hospital of the residents, teaching physicians, program administration, and allocated overhead. Although this method continued following the implementation of the Prospective Payment System (PPS) in 1983, concern with cost increases led to the new method of determining payment for direct costs.

The current payment mechanism, a per-resident payment established under the COBRA, uses a different formula for calculating Medicare's direct GME payments to hospitals. In brief, total payments to a hospital are a product of (1) a hospital's specific per-resident amount, as derived from 1984 cost reports and updated for inflation; (2) the weighted number of full-time-equivalent residents in approved GME programs; and (3) the proportion of total patient days attributed to Medicare patients. (The report of the Subcommittee on GME Programs and Financing, published in Volume II of this Council on Graduate Medical Education report, provides more detail regarding this approach.)

Information available to the Council reveals an unaccountably wide variation in per-resident direct costs among hospitals. While there is known variation among hospitals in the extent to which salaries of physicians are included for teaching time, such differences do not completely account for the range of variation that has been observed. In a sample of hospitals using 1984 data, for example, annual hospital per-resident costs ranged from $7,500 to $187,500, with a mean of $53,500 and a median of $50,000.[11] Of these amounts, annual costs of resident salaries and fringe benefits were thought to be about $30,000.

As indicated above, much of this variation among hospitals cannot be explained by data available at the national level, such as the hospital cost reports. Given this situation, the possible effect of new policies designed to limit or reduce the direct costs of GME is similarly unclear. Consequently, the Council believes that the existence of such wide variations in per-resident direct costs is a matter that warrants further analysis. The Council recognizes that section 9202(e) of the COBRA legislation requests a report on the uniformity of approved full-time-equivalent per-resident amounts (the study has not yet been completed), and that HCFA also proposes to address this area through a review of individual hospitals' classification of GME and operating costs. These activities should be given high priority.

> ***Recommendation 22.*** **The COBRA-mandated study of the variation in per-resident direct costs should be carried out expeditiously. Programs with per-resident costs well above the mean should be studied to define appropriate limits, and programs with lower per-resident costs should be studied to understand the reasons for the lower costs.**

CONCLUSION F-2. THE GME INDIRECT COST ADJUSTMENT IS USED TO COMPENSATE TEACHING HOSPITALS FOR HIGHER COSTS PER CASE THOUGHT TO BE DUE IN PART TO FACTORS SUCH AS GREATER SEVERITY OF ILLNESS WITHIN DIAGNOSIS-RELATED GROUPS (DRGs), GREATER USE OF DIAGNOSTIC TESTS, ETC. SOME OF THESE COSTS MAY NOT BE DIRECTLY RELATED TO MEDICAL EDUCATION.

The IME, or teaching, adjustment is an additional payment made to hospitals under the Medicare PPS to compensate teaching hospitals for indirect costs of GME—the additional patient care costs associated with the training of interns and residents. Examples of additional costs include but are not limited to the increased use of ancillary services, a greater severity of illness than is accounted for by DRGs, and the cost of the increased availability of state-of-the-art testing and treatment facilities in teaching hospitals.

The Council appreciates the complexities involved in defining these costs. The amount of the adjustment is derived not from an analysis of actual costs, but rather from a formula based on estimates derived from regression analysis using Medicare cost report data. At the same time, other factors have been shown to contribute to higher costs in these facilities, including location in inner cities, number of beds in the hospital, and size of the Metropolitan Statistical Area (MSA) population. Some of these factors may cause higher costs in nonteaching hospitals as well.

In calculating the indirect teaching adjustment, a regression model is used that includes some but not all of the factors that explain higher costs in teaching hospitals. As a result, the adjustment serves as a proxy for other factors such as number of beds in the hospital and size of the MSA. There continues to be debate about the appropriateness and success of capturing such factors by this proxy.

Both the Congressional Budget Office and the Prospective Payment Advisory Commission have devoted resources to the review and study of indirect costs and the IME rate. Congress has enacted reductions in the indirect adjustment based in part on such work and has also enacted differential annual increases ("updates") in PPS payments according to hospital location in rural areas and large MSAs. Further studies are expected on ways to adjust the PPS and the indirect teaching adjustment to appropriately compensate teaching hospitals under Medicare. The Council prefers that payments labeled as "medical education" should be used only for costs related to medical education. It intends to monitor this area closely as part of its future agenda.

> ***Recommendation 23.*** **The reasons for the higher costs of teaching hospitals should be analyzed further with the goal of paying for medical education costs through the indirect teaching adjustment where justified and paying for costs not related to teaching programs through other mechanisms where that is more appropriate. The Council believes that any changes should take into account the overall effect on teaching hospitals.**

G. FOREIGN MEDICAL GRADUATES AND ACCESS TO GRADUATE MEDICAL EDUCATION

Public policy debate has considered the interrelationship between the Nation's policy regarding FMGs and physician supply, access to health care, health care quality, and the cost of GME. Recent proposals have been made to eliminate public

financial support for residency training of FMGs as a means to curtail physician supply growth and/or to obtain savings in public funds.

Although the total number of FMGs in GME has declined over the last several years, FMGs continue to represent a relatively large component of residency training in selected regions and specialties. In 1986 they represented 15.7 percent (12,035) of all residents in training; however, they were disproportionately represented in selected training hospitals in the Eastern and Midwestern States and in the specialties of internal medicine, pediatrics, and psychiatry. The distribution of FMGs between major and minor teaching centers parallels that of all residents. Approximately 85 percent of all FMGs in GME are distributed among the 400 teaching hospitals that are members of the Council of Teaching Hospitals (COTH) of the AAMC. The remainder are scattered among another 800 hospitals.

Three major categories of FMGs participate in GME: (1) native-born American citizens who have graduated from foreign medical schools and return to the United States for GME; (2) immigrants (aliens) who are naturalized American citizens or have permanent resident status in the United States; and (3) exchange visitor physicians who are in the United States on a temporary visa and who will be returning to their home country upon completion of their training. The native-born Americans and the immigrants constituted more than 83 percent of all FMGs in GME in 1986.

CONCLUSION G-1. THE PRINCIPLE OF INDIVIDUAL COMPETENCY AS THE DOMINANT CRITERION FOR SELECTION INTO GME SHOULD BE MAINTAINED.

CONCLUSION G-2. DIFFERENTIATION AMONG FMGs ON THE BASIS OF CITIZENSHIP OR IMMIGRATION STATUS IS CONTRARY TO THIS PRINCIPLE, AS WELL AS TO U.S. TRADITION, AND ETHICAL CODE, AND IS PERHAPS ILLEGAL.

CONCLUSION G-3. IT IS HIGHLY DESIRABLE THAT ALL GRADUATES OF U.S. ALLOPATHIC AND OSTEOPATHIC MEDICAL SCHOOLS BE ABLE TO OBTAIN AN ENTERING POSITION IN GME. HOWEVER, U.S. MEDICAL SCHOOL GRADUATES SHOULD NOT BE GRANTED AUTOMATIC PRIORITY OVER THE QUALIFIED GRADUATES OF NON-DOMESTIC MEDICAL SCHOOLS AS A MEANS OF ACHIEVING THIS GOAL.

CONCLUSION G-4. U.S. MEDICAL SCHOOLS ARE OBLIGATED TO PROVIDE THE BEST POSSIBLE EDUCATION WHICH WILL ALLOW ALL GRADUATES TO COMPETE EFFECTIVELY FOR GME POSITIONS. THEY SHOULD CAREFULLY EVALUATE ALL STUDENTS AND GRADUATE ONLY THOSE CONSIDERED UNEQUIVOCALLY QUALIFIED FOR GME.

The Council believes that it is in the best interest of the Nation and the health care establishment to select candidates for residency positions on the basis of individual qualifications, not on citizenship, country of origin, or place of medical education. The Council believes that to do otherwise would be unwise as well as unethical, incompatible with U.S. traditions, and perhaps illegal.

The Council recognizes that the issues here are complex and sensitive. First, the Council is cognizant that the considerable public and private investment in undergraduate medical education in U.S. medical schools should be valued and protected. The granting of the M.D. or D.O. degree in the United States per se implies preparedness to enter and complete GME. However, expectation of an unbroken progression from undergraduate medical education to GME, to licensure, and to practice should not diminish the principle of individual competency as a selection criterion for advanced training. This has been a basic rule for GME.

Second, with respect to FMGs per se, it does not appear to be in the best interest of this Nation to support differentiation among individuals by citizenship, immigration status, or country of origin. In addition to ethical considerations, all FMGs, whether born in the United States, naturalized, or holding permanent resident status, have similar constitutional protections against discrimination. However, when it comes to access to employment rights or education, the United States Supreme Court has ruled in the past that the equal protection clause of the Constitution does not forbid Congress and the States to treat aliens differently from citizens (or to differentiate between groups of aliens).[9] The Court also ruled, however, that distinctions based on alienage must be justified.[9] Thus, a compelling government interest must be shown to justify Federal or State restrictions on alien access to the usual rights and amenities available to citizens.

The current system for assessing the readiness of FMGs to enter GME (described later in this report) provides a single pathway of testing medical knowledge for *all* FMGs as a group. Changes are being considered to test for spoken English and applied clinical skills. Upon the incorporation of these additional tests, the evaluation system for FMGs will have been strengthened for purposes of evaluating individual competence.

While the Council recognizes that individual institutions may wish to give preference to their graduates or graduates from schools in their own State, selection based on individual competence remains a morally and intellectually sound basis of operation.

The Council does not wish to leave the impression that it encourages U.S. citizens and aliens to study in foreign countries with the ultimate intent of practicing medicine in the United States. The variable quality of medical education in foreign countries and the growth in total number of practicing physicians in the United States should be considered by individuals interested in undertaking medical studies abroad or considering immigration to the United States.

Recommendation 24. **Selection into GME programs should be based on the relative qualifications of the individual applicants, not on group or institutional associations.**

Recommendation 25. **For the purpose of limiting access to GME, the Federal Government should not establish**

policies which would discriminate against medical school graduates on the basis of citizenship, immigration status, or medical school location.

During the Council's deliberations, considerable attention was directed to the readiness of FMGs to enter GME. This subject represented an area of substantial controversy which was extensively addressed at the subcommittee meetings and at the public hearing. At the center of the controversy is the existence of a dual examination system for testing the medical knowledge of U.S. medical school graduates and students/graduates from foreign medical schools. Several organizations testified at the Council's public hearing that they believed the dual system to be essentially discriminatory. Since the hearings, recent decisions made in the private sector about conversion to a single examination pathway may lead to a resolution of the controversy.

Most students of U.S. and Canadian medical schools, which are accredited by the Liaison Committee on Medical Education (LCME), sit for Part I and Part II of the National Board of Medical Examiners' examinations (NBME I and II) when tested for knowledge in the basic medical and clinical sciences. Access to these examinations is limited to students and graduates of U.S. and Canadian medical schools. In contrast, students and graduates of non-LCME-accredited medical schools sit for the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS) when tested for similar knowledge. This latter examination is derived from the pool of examination items owned by the NBME and used for the preparation of Part I and Part II of the NBME examinations.

CONCLUSION G-5. THE CURRENT SYSTEM FOR TESTING FMGs ON KNOWLEDGE IN THE BASIC MEDICAL AND CLINICAL SCIENCES IS ADEQUATE. WITH THE EXPECTED ADDITION OF A TEST TO ASSESS APPLIED CLINICAL SKILLS AND A TEST OF SPOKEN ENGLISH, CURRENT CONCERNS REGARDING THE EVALUATION OF FMG CANDIDATES FOR ENTRY INTO GME WILL HAVE BEEN ADDRESSED.

The Council is supportive of actions currently being undertaken by the NBME, the Educational Commission for Foreign Medical Graduates (ECFMG), and other organizations to endorse the offering of NBME I and II as an alternative to FMGEMS for foreign medical students/graduates. This does not imply a diminution of the role or function of the LCME in assuring the quality of medical education in the United States. Assessments of student or graduate competence to enter higher levels of education or to practice, while closely linked to the structure and process of education, should be seen as distinct activities from accreditation processes that assess the institutional resources available for the provision of the required education.

The United States has a rigorous system for accrediting medical education programs and schools. This system requires assessment of U.S. student knowledge and clinical skills by personal observation and written examinations throughout the entire undergraduate education period. In the absence of a similar system for review of individual progress in applied clinical skills for students in foreign medical schools, the addition of clinical skills assessment to the current evaluation program is believed to fulfill this need. While the formal assessment of applied clinical skills of U.S. students at the end of their undergraduate studies was not extensively discussed, the Council is aware that this area is being further developed by the medical education community."

Computer-based approaches to testing clinical knowledge and skills show promise. Although still being researched, these have moved into the field-testing stage. It is expected that with the increased availability of computer equipment in U.S. medical schools, computer-based testing may be the norm by the early 1990s. However, field tests have demonstrated that familiarity with computer equipment and computer-based testing methodology is required to avoid negative bias for new users. Therefore, some caution is required regarding preliminary application of this new technology for both U.S. medical school students and students from foreign schools.

CONCLUSION G-6. IT WOULD BE BOTH PRESUMPTUOUS AND UNWISE FOR THE GOVERNMENT AND/OR THE PRIVATE SECTOR TO ATTEMPT TO ESTABLISH PROCEDURES FOR ACCREDITING MEDICAL SCHOOLS OUTSIDE ITS TERRITORY.

While the Council is concerned about the quality of education in foreign medical schools, particularly those that are proprietary, it does not believe that it is feasible or rational to establish an accreditation system within the United States for foreign medical schools. Attempts have been made by States and private sector organizations on a number of occasions to establish lists of foreign medical schools whose graduates could be considered to have an education equivalent to that of domestic graduates and have proven unsuccessful.

Cultural aspects of medicine are important components of analysis for assessing comparability and/or differences in medical education. Although medicine as a science can probably be practiced anywhere in the world regardless of social and cultural differences, educational systems are not free of societal constraints. The Council recognizes that there is not homogeneity in medical education, i.e., that the structure and processes of education in all countries are intimately associated with the values and norms of those societies. The Council believes that the integrity of these differences should continue to be respected by the U.S. Government and the private sector alike.

As different regions of the world are confronted with questions similar to those in the United States regarding the quality of their medical education, mechanisms are being established to set standards and procedures for regional recognition of schools. It is in the best interest of the United States to work cooperatively with these efforts.

Recommendation 26. **A single medical knowledge examination for all GME candidates should be implemented as soon as possible.**

Recommendation 27. **If an applied clinical skills assessment examination is introduced for general applicability for entry into GME, one examination should be used in evaluating all candidates including graduates of U.S. medical schools.**

Recommendation 28. **The private sector should be sensitive to bias in testing which may be caused by use of new testing technologies and methodologies.**

Recommendation 29. **Neither the Government nor the private sector should establish a system for accreditation of foreign medical schools.**

Recommendation 30. **The private sector should endorse and assist the efforts of foreign countries to establish national or regional standards and procedures which will improve education in their medical schools.**

Although we do not endorse restricting access to GME for FMGs, except on the basis of the quality of the individual applicant, the Council was asked to explore the implications of such a national policy. Testimony, data analysis, and several studies provided information regarding the extent to which hospitals are dependent on FMG residents for the provision of essential medical services, the specialties with large numbers of FMGs, and the potential for substitution of FMGs with other types of providers.

CONCLUSION G-7. UNLESS ALTERNATIVE SYSTEMS FOR PROVIDING CARE ARE ESTABLISHED FIRST, EXCLUSION OF FMGs FROM GME PROGRAMS WILL REDUCE THE ABILITY OF A SMALL NUMBER OF HOSPITALS TO PROVIDE CERTAIN ESSENTIAL HOSPITAL-BASED MEDICAL SERVICES. THESE HOSPITALS SERVE A DISPROPORTIONATE SHARE OF THE POOR. AMBULATORY SERVICES WILL BE MOST IMMEDIATELY AND SEVERELY IMPACTED.

Among the 435 member hospitals of the COTH, there are 109 major teaching hospitals that have been referred to as "FMG-dependent"—i.e., hospitals with 10 or more residents of which 25 percent or more are FMGs. The number of hospitals decreases to 34 when the FMG criterion is 50 percent. These FMG-dependent hospitals serve an economically disadvantaged population as measured by the proportion of patients on Medicaid. In addition, the proportion of patients who are Medicare beneficiaries is slightly higher in these hospitals than in other non-FMG-dependent COTH hospitals.

It is important to note, however, that available data do not reflect homogeneity or easily generalized characteristics of hospitals and FMG dependence. First, only a relatively small percentage of all FMGs may be concentrated in the most affected inner-city hospitals. Second, there are other inner-city hospitals providing care to the poor that are not FMG-dependent. Even in these latter hospitals, substantial differences in the percentage of FMG program participants exist among specialties. The primary care specialties of pediatrics and internal medicine are likely to have larger numbers of FMGs than are all other specialties in these hospitals. Third, there is concern that the COTH data include only information on COTH member hospitals. There are many teaching hospitals, mostly smaller community teaching hospitals not directly affiliated with medical schools, which have FMG residents but are not COTH members.

On the basis of on-site information collected at 15 of the FMG-dependent facilities, related analyses,[9] and public testimony, the Council is persuaded at this time that current levels of service would not be sustained at these facilities if FMGs were no longer in their residency programs unless alternative manpower resources were developed. The impact of reductions in service availability would be borne disproportionately by Medicaid and Medicare beneficiaries, children, the uninsured working poor, and the indigent.

The information collected from the 15 facilities also indicated a disproportionate effect on ambulatory service should policies be adopted to eliminate FMGs in their residency programs. In brief, interviews with administrators at these facilities suggested that their hospital-based outpatient clinics would likely represent the first area for cutbacks if FMGs are excluded from GME. This outcome could very well shift ambulatory care in these facilities into emergency rooms or into other community facilities.

The Council understands that a complete analysis should include a review of the potential medical care which may be provided in alternative settings. However, this information is not currently available.

CONCLUSION G-8. NONPHYSICIAN HEALTH CARE PROVIDERS CAN PERFORM SOME OF THE TASKS NOW PROVIDED BY FMG RESIDENTS. HOWEVER, THE DEGREE TO WHICH THIS CAN BE ACCOMPLISHED VARIES MARKEDLY DEPENDING ON THE NATURE OF THE SPECIALTY AND THE LEVEL OF CARE BEING PROVIDED.

Although the Council has not analyzed in detail current and future relationships between physician and nonphysician providers, the utilization of nonphysician manpower was discussed before the Council. Testimony received was not definitive regarding the feasibility of using nonphysician health care providers as substitutes for FMGs. Variations in the availability of nonphysicians was but one of many factors cited as constraints.

Although the vast majority of the respondents at the 15 FMG-dependent institutions visited believed that only a U.S. medical graduate or an attending physician could amply substitute for an FMG resident, many indicated that a nurse practitioner, physician assistant, or other health care professional could perform between 10 and 40 percent of a resident's patient care duties.

There was some indication that the direct patient care responsibility of a resident's training was relatively low in certain specialties such as pathology and diagnostic radiology, permitting relatively straightforward substitution with technicians. However, in other specialties such as obstetrics and gynecology, surgery, family medicine, and internal medicine, the patient care responsibility of the resident was proportionally higher, making straightforward substitution with nonphysicians more difficult.

Net replacement costs per resident tended to be lowest in specialties in which a significant portion of a resident's patient care activities could be replaced easily by health care professionals other than attending physicians, such as in diagnostic and therapeutic radiology, and highest when such substitution is difficult, such as in neurology and surgery.

The study findings suggest that pathology appears to be the one specialty in which it would be cost-effective to replace the

patient care services provided by FMG residents. This is attributed, in part, to the large proportion of time devoted by the residents to the educational component of this particular specialty.

Substitution with physician manpower was not extensively discussed in testimony. The increasing intensity and concentration of very ill patients in the secondary and tertiary level teaching hospitals may require substitution exclusively with fully-trained medical staff. As the total number of U.S.-trained physicians increases, it is suggested that this option may be more feasible than in the past.

All of these options require consideration of the affected community and of the financial and social environment capabilities of hospitals to attract and retain physicians or other health care providers. As mentioned in the Physician Manpower section of this report, most of the researchers who have studied the effects on geographic dispersal of physicians as supply expands have concluded that no matter how large the physician pool has grown, there are many rural and urban areas that remain unattractive to physicians for both economic and lifestyle reasons. Many, but not all, of the FMG-dependent COTH hospitals are located in these less desirable urban areas.

The Council believes that sufficient questions exist to emphasize a need for gradual, rather than precipitous, actions if policies are pursued to reduce or eliminate the number of FMGs in residency programs. It is simply not practical for residents to be removed from programs and replaced by physicians or nonphysicians on a one-for-one basis.

Recommendation 31. **If the Federal Government and/or the private sector were to develop policies which would reduce the number of FMGs in GME, alternative systems for delivering hospital-based medical care should be established in advance for those FMG-dependent hospitals which serve a disproportionate share of the poor.**

Recommendation 32. **If policies are adopted which would reduce the number of FMGs in GME, consideration should be given to the following to minimize major disruption to provision of health services:**

a. **A transition period should be allowed to enable hospitals to make necessary adjustments in GME programs. Temporary waivers from such reductions should be provided for programs which offer high-quality education and provide primary care in an underserved area or are serving a large indigent population, because these programs may require more time to increase the complement of alternative full-time health care providers.**

b. **Federal and State Governments and the private sector should provide financial incentives (e.g., educational loan repayment, bonus for tenure, partial payment of malpractice insurance) to assist hospitals in replacing FMG residents with full-time physicians, residents who are graduates of U.S. medical schools, or other appropriate health care providers.**

H. FOREIGN MEDICAL GRADUATES AND INTERNATIONAL RELATIONS

A consideration of issues related to the training of FMGs has implications for U.S. relations with other countries. This is particularly the case in considering potential educational policies adopted at the national level that might affect the numbers of international exchange physicians receiving training in the United States.

The profile of entrant exchange visitors has changed dramatically over the past 10 years. In the mid-1970s, relatively large numbers of physicians came to this country annually to pursue GME (e.g., about 1,600 entrants in academic year 1975-76). From 1979-80 to the present, in contrast, the number has ranged between 400 and 800. In addition, from 1980 to 1985 participation has increased from the Western developed countries (e.g., Canada, Australia, and Great Britain) and decreased from several of the large low-income countries (e.g., India and China). Countries in Africa, Central America, South America, and the Pacific/Oceania areas, which always had small numbers of entrants, showed relatively large reductions in numbers of entrants.

CONCLUSION H-1. IT IS LIKELY THAT GME PROGRAMS WHICH HAVE TRADITIONALLY PROVIDED TRAINING FOR EXCHANGE VISITOR PHYSICIANS WHO RETURN TO THEIR HOME COUNTRIES WILL HAVE TO REDUCE THEIR EFFORTS IF FOREIGN PHYSICIANS ARE EXCLUDED FROM STIPEND/SALARY REIMBURSEMENTS.

CONCLUSION H-2. SOME COUNTRIES SEEKING U.S. ASSISTANCE FOR DEVELOPMENT OF THEIR PHYSICIAN MANPOWER ARE FINANCIALLY ABLE TO SUPPORT THESE EFFORTS; OTHERS, WITH FEWER RESOURCES, ARE NOT. PARTICIPATION IN THE EXCHANGE VISITOR PROGRAM OF THE UNITED STATES BY PHYSICIANS FROM THIS LATTER GROUP OF COUNTRIES HAS BEEN STEADILY DECREASING IN THE LAST DECADE.

The Council believes that a strong possibility exists that U.S. relations with foreign countries will be harmed if educational opportunities for international exchange visitors are reduced as a by-product of any general reduction in GME opportunities. Although recent collaboration in the private sector has resulted in the initiation of some scholarship support, the level of effort is very small in comparison with the availability of funding received through third-party payers. For the near future, there does not appear to be any alternate source of funds to substitute for those currently available.

At the public hearing, interest was consistently expressed in continuing an international exchange visitor program of one form or another. Some organizations proposed that a funding source separate from Medicare might be appropriate for this purpose (e.g., foreign aid account; separate exchange visitor educational account).

A recent study of nine developing countries, conducted for DHHS and the United States Information Agency, found that

all had considerable financial problems, except for Saudi Arabia. These included high levels of inflation and difficulties with foreign debt repayments. This contributed to restrictions on exit visas and foreign exchange, with implications for overseas training. All of these countries have medical training facilities of their own. They are generally thought to be adequate at the undergraduate level, but assistance is required at the graduate level. Most countries are trying to improve their own facilities and often have very talented professors, but there are limited training opportunities and teaching materials—books, equipment, etc. Even with an increasing trend toward training in-country or perhaps in a country nearby, U.S. specialty training is recognized as desirable preparation and there is a continuing need for it.

CONCLUSION H-3. THERE IS A NEED TO EXPAND AND MODIFY THE EDUCATIONAL OPPORTUNITIES FOR EXCHANGE VISITOR PHYSICIANS TO BETTER MEET THE HEALTH CARE DELIVERY REQUIREMENTS OF THE HOME COUNTRY AND TO ENHANCE RELATIONS WITH DEVELOPING COUNTRIES.

The Council also received testimony concerning implementation plans for an International Medical Scholars Program (IMSP). Several private sector organizations have joined together to establish the IMSP.

The goal of the IMSP is to provide 1,500 exchange opportunities annually in the medical sciences, health administration, and public health. The IMSP will not be directed toward arranging residency programs that lead to certification. FMGs planning to return to their home country, but who are interested in formal residency training in the United States, will continue to be certified by the ECFMG and to use the NRMP for accessing this training.

Advocates of the IMSP program propose to seek funds in both the public and private sectors for its support. It is anticipated that the educational programs will include individually tailored advanced educational opportunities designed to meet the health care needs of the scholar and his or her home country.

The Council reviewed a number of studies and workshop proceedings that were designed to explore in depth the value of providing study opportunities in the United States to exchange visitor physicians.[9] In brief, the findings of these analyses indicated that GME is greatly valued by participants; however, the requirements of the exchange visitor with respect to meeting home country needs were often not met. Several organizations testifying at the public hearing suggested that exchange visitor experiences for physicians should include programs such as faculty development fellowship programs and short-term training opportunities in public health offered by private organizations [11] and programs utilizing structured preceptorships with practitioners in addition to traditional GME.

The Council endorses the concept that alternative international exchange programs should be implemented that better articulate home country and visitor needs. The Council recognizes that while tailored programs are the most desirable for responsiveness to these needs, they are more problematic to implement. The Council also believes that movement toward adding alternative exchange programs should not diminish the value of and interest in traditional residency training. Offering specialty training opportunities to foreign physicians has a very real benefit to the United States which is often long-term and improves both the overall image of our country and its international standing.

Individuals entering the United States for training under a J visa must return to their home country for a two-year period before they can immigrate to this country under nonvisitor status. Information presented to the Council suggests that this interval is too short. Under current law, it appears that individuals begin the process of returning to this country shortly after they have left it. A longer time interval is believed necessary to significantly increase the probability of these individuals remaining in their home country.

Recommendation 33. **Exchange visitors in traditional GME should continue to be supported like all other participants in GME. Patient care funds should continue to support the proportion of activities that actually provide patient care. Home country support, the trainee's own funds, foreign aid funds, or other sources of support should be used for nontraditional educational experiences of the exchange visitor.**

Recommendation 34. **To encourage reestablishment in the home country, the two-year return home requirement should be modified to increase the number of years to five. This would contribute to a longer period of time for reacculturation before reentry into the United States is possible.**

Recommendation 35. **The public and private sectors should support the efforts underway to implement the International Medical Scholars Program. This support should be both monetary and programmatic.**

Recommendation 36. **Training in traditional GME may not be appropriate for many exchange visitors. Although a number of alternative programs exist at the present time, additional programs should be developed. All appropriate bodies, both in the public and private sectors, should assist with the development of programs which would be broader than or different from classic clinical training. Although more expensive (but probably more effective), training assistance should be conducted in settings which involve both the home country and the United States. Funding resources for this effort should be sought from the U.S./home country governments, international corporations, and private foundations.**

I. STRUCTURE AND CONTENT OF MEDICAL EDUCATION

Throughout its deliberations, the Council considered a variety of issues related to the structure of medical education. This section focuses on its major conclusions and recommendations in this area.

CONCLUSION I-1. THOSE WHO BEAR THE COST OF GME, INCLUDING PAYERS AND INSTITUTIONS,

HAVE HAD LITTLE TO SAY ABOUT THE LENGTH OR CONTENT OF TRAINING PROGRAMS. LENGTH OR CONTENT REQUIREMENTS CAN BE ADDED WITHOUT ADEQUATE INPUT OF INDIVIDUAL INSTITUTIONS OR PAYERS, EVEN THOUGH THIS RESULTS IN INCREASED TRAINING COSTS.

Recent examples of proposed or implemented changes in training requirements are the specialties of anesthesiology and cardiology, which have increased the number of years of training required for board eligibility by one year each, and surgery, which is considering a one-year increase. It has been brought to the attention of the Council that some specialty or subspecialty boards are considering the requirement of an added year for research before board certification.

The requirements for medical specialty certification are mandated by the 23 specialty certifying boards, and the duration and content of accredited GME programs are established under the auspices of the Accreditation Council for Graduate Medical Education (ACGME). The ACGME sets the standards for residency training and voluntary accreditation of U.S. GME by establishing general requirements and approving specific requirements for specialty residency training programs proposed by the residency review committees (RRCs). The ACGME is made up of representatives appointed by its member organizations: the American Board of Medical Specialties, American Hospital Association, American Medical Association, the AAMC, and the Council of Medical Specialty Societies.

The Council believes that the process for establishing the length and content of GME training programs should be conducted as an integral part of educational decision making. At the same time, however, the Council understands the interest of various affected parties in having an opportunity to provide input into this process. This extends particularly to payers potentially affected by the costs resulting from new requirements, hospitals which would be required to find resources to pay the additional costs, and to students and residents whose career decisions may be affected.

The Council understands that the present process does allow for the participation of hospital administrators, medical students, and others to provide input before final determinations are made. At the same time, testimony provided to the Council suggests that the participative nature of the overall process could be strengthened, particularly in the earlier stages. The process involves both the American Board of Medical Specialties (ABMS) as coordinator for its constituent specialty boards and the ACGME. The Council believes that efforts should be pursued to meet the interests of all affected parties.

Recommendation 37. **Certifying boards and accrediting bodies should provide maximum early opportunity for input from institutions and payers in considering changes in the length or content of GME training programs. Certifying boards and accrediting bodies should be required to justify changes that would increase the length of training or would add a research component to a clinical training program. The Council urges the parents of the ACGME to convene for the purpose of determining methods by which this recommendation can be implemented. It also urges the ABMS to bring this to the attention of its individual boards.**

Recommendation 38. **In view of educational and other concerns that relate directly to their professional future, medical students and residents should also be given the same opportunity for early input to certifying boards and accrediting bodies.**

CONCLUSION I-2. IN SOME GME PROGRAMS THE QUALITY OF THE EDUCATION HAS BEEN ADVERSELY AFFECTED BY EXCESSIVE SERVICE REQUIREMENTS.

A number of organizations that testified at the public hearing commented that the educational quality of residency programs needed to be safeguarded. In this context, the Council views with some concern those residency programs whose principal functions have become the staffing of institutional service units. Although this issue arose initially in the context of FMG considerations, it was not confined to this area. Presumably, the matter also has relevance to some facilities with high service volumes yet low numbers of FMGs. (Similarly, not all facilities with large numbers of FMGs in residency training programs have high service requirements.) The Council notes with interest some recent programs that have separated service components from certain residency training programs. In a context of competing demands for educationally sound training and the provision of medical care services, at least one State (New York) and one department in a busy inner-city hospital (internal medicine in Detroit Medical Center) have either proposed or implemented changes which make separate provision for service needs of hospitals and the educational requirements of residency training programs.

The Council supports such efforts, particularly with respect to preserving the integrity of both education and service in teaching facilities. The Council believes that no matter how problematic, service demands should not form the basis or rationale for GME programs. In brief, the programs should exist primarily to educate trainees, not as a mechanism for service delivery.

Recommendation 39. **Residency approval bodies should carefully scrutinize those GME programs which have large service loads.**

Recommendation 40. **The Federal Government and the private philanthropic sector should provide resources to study and develop alternative teaching/service models in service-intensive settings. Successful models should be shared with the medical community and institutionalization of these models encouraged.**

CONCLUSION I-3. THE COUNCIL SHARES THE CURRENT CONCERNS ABOUT EXCESSIVE RESIDENT DUTY HOURS AND INADEQUATE SUPERVISION AND THEIR IMPACT ON THE QUALITY OF PATIENT CARE AND RESIDENT EDUCATION.

Recent events have spotlighted possible problems with resident supervision and hours of duty in residency training programs.

As an outgrowth of concern about this issue, the ACGME appointed a task force in June 1987 to review educational conditions, resident supervision, resident hours of duty, and current ACGME requirements for accrediting residency programs. A final report of the task force was approved in principle on February 9, 1988. The report set forth seven recommendations regarding such matters as adequate facilities and support services, responsibility for and adequacy of supervision, sufficiency of numbers of resident staff for patient care workloads, etc.

During the same period, the AAMC developed a report, *Resident Supervision and Hours*. An AAMC memorandum on the subject was issued on March 8, 1988, which also provided a series of recommendations to teaching hospitals, residency programs, etc.

The Council shares the concerns regarding excessive resident work hours, but at the same time notes that there is considerable variation from program to program in facilities, support services, and nature of patient care workloads. The Council believes that flexibility should permit longer on-call periods when patient care loads are smaller, and wishes to avoid rigidity regarding the beginning and cessation of resident work hours.

> ***Recommendation 41.*** **The Council is supportive of efforts to resolve the problems of resident physician fatigue and inadequate supervision, but it cautions against global solutions which may be insensitive to local variation in patient care loads and service requirements.**

J. DATA AND RESEARCH ISSUES

A number of presentations made to the Council provided data and research results which were useful to the Council in its deliberations. However, the Council found it extremely difficult to draw definitive conclusions and make more specific recommendations in several subject areas because of the lack of key information.

The statutory charge to the Council extends to recommendations about data and research. Many of the earlier recommendations in this report have already addressed this matter. The following discussion, in lieu of a separate paper in Volume II of the report, summarizes the Council's views in this general area.

> *CONCLUSION J-1. PHYSICIAN MANPOWER ANALYSIS, DEVELOPMENT OF HEALTH POLICY, AND PLANNING CONTINUE TO BE HAMPERED BY CONSIDERABLE LIMITATIONS IN DATA AND RESEARCH.*

The Council found that the overall supply and geographic distribution of physicians are well measured by the data which have been compiled by the professional associations. The Council believes that BHPr and the professional associations should continue to collect and analyze these data.

The professional associations and other organizations, such as the National Center for Health Statistics (NCHS), regularly provide useful descriptive data on physician practice characteristics, such as the numbers of patient visits, hours worked, fees charged, and physician incomes. These data are useful descriptors of the practice environment for physicians in the various specialties and regions of the country. In addition, special surveys sponsored by BHPr and by HCFA have contributed to our knowledge about the ways in which physicians practice.

Gross measures such as the number of patient visits per week, however, provide only limited information about the specific medical services provided by physicians. The Council was unable to find any recent comprehensive data base which describes the current clinical practices of the individual specialties in detail. A useful effort in this area was the National Study of Medical and Surgical Specialties conducted by Robert C. Mendenhall of the University of Southern California and supported by the Robert Wood Johnson Foundation and by BHPr. These data, however, were collected in the mid-1970s, and considerable change has occurred in the medical practice environment since that time. A related issue is the lack of comparable data on nonphysician providers who either assist physicians or have independent practices.

The Council heard several presentations about physician manpower research. Several useful analytical studies have been performed and several computer models have been developed to make supply and requirements projections. Projections of the numbers of physicians that will be available in the United States have been made using computer models developed by BHPr and by the American Medical Association. The physician supply projections generated by these models provide useful planning information, although a number of uncertainties remain. These include the amount by which medical school enrollments will decline from their current levels, the effect of malpractice insurance price increases and other factors on physician practice and retirement decisions, and the numbers of FMG physicians who will establish practice in the United States.

It is even more difficult to make predictions about the type and level of output physicians will produce in the years ahead. It is possible that a greater proportion of the physician supply might enter fields such as administration or research, which are not directly related to patient care. Moreover, some types of physicians, such as women and older physicians, tend to work fewer hours and treat fewer patients than do the rest of the physicians in patient care. An important and unanswered question is whether these differences in output among types of physicians will persist in future years.

Another physician productivity issue is whether physicians will work fewer hours in the future. Although the average number of hours spent for direct patient care by practicing physicians has remained essentially unchanged in recent years, a desire for more leisure time appears to be growing among physicians. This could lead to decreases in the output of physicians if they were to reduce their hours of work in future years.

The Council also found that a great deal of uncertainty exists regarding the likely requirements for physicians in the future. Although requirement projections have been developed by several organizations and researchers including BHPr, GMENAC, and the Bureau of Labor Statistics, the Council found them lacking in two respects. First, there exists a very wide range of

possible growth rates in the use of physician services in the future. There has been substantial change in the health care sector in recent years, and it is difficult to predict the course of change in the future. Expenditures on health care have grown more rapidly than the rest of the economy over the past two decades. It is not clear whether such growth will be maintained in the future.

The Council did not find any satisfactory set of physician requirement projections by specialty. Although the ones produced by GMENAC are useful, much has changed since they were developed. The Council found that the lack of information on the clinical practices of each specialty seriously limits its ability to make projections.

Some steps, however, have been taken recently to improve the availability of such information. DHHS has improved the availability of information from claims for physician services submitted under the Medicare program. It would be useful if similar data could be obtained from the rest of the patient population.

The effect of technology is important in overall physician requirement projections, but it is particularly important for projections at the specialty level. Even with more data and research there will still exist considerable uncertainty about future technological developments and the extent to which they will be implemented in medical practice. Nevertheless, the Council believes that further study of the dependence of each specialty on current technology and the likely effect of anticipated future development would be useful.

The Council recognizes the value of using alternative analytic approaches to generate estimates of the current and future adequacy of physician specialty manpower. Work being undertaken in this area by both the public and private sectors to refine these approaches should continue and be appropriately supported.

The Council's assessment of the status of GME financing was clearly hampered by the lack of accurate information on the costs of GME by specialty and the degree to which the current sources of revenue are able to meet these costs. In great part, the complexity of GME makes it difficult to obtain definitive information. The basic organizational unit of GME is the program to which the resident belongs. Each program may serve patients in more than one hospital or other practice setting. Portions of the program's budget may come from a variety of sources. For example, the residents' salaries and fringe benefits might come from the budgets of one or more hospitals, while the faculty salaries might come from hospital budgets, medical school budgets, or FPPs. Because program-level data bases are not readily available, it is difficult to draw conclusions about the cost of training in particular specialties. DHHS has made several analytic contributions in this area. The Medicare cost reports are made available for research on a regular and timely basis. These reports enable researchers to determine how hospitals allocate their costs, particularly how much each department or cost center allocates to GME. It is difficult, however, to draw conclusions on the cost per resident with these data, and relatively little is known about the types and amounts of inputs which these costs represent. For example, salaries might include payments to an unspecified number of residents and faculty in a particular department.

Further research should be done to identify the direct costs actually reimbursed by Medicare and the ways these costs are likely to vary among institutions in both inpatient and ambulatory settings. There appears to be considerable heterogeneity among teaching hospitals.

Although some facilities are very dependent on the direct and indirect GME payments made by Part A of Medicare, other institutions have more broad-based methods of support. Thus, it is likely that changes in Medicare reimbursement would have differential effects among hospitals of currently unknown proportions. Although payments are made by Medicare to cover the indirect costs of GME, relatively little is known about amount and composition of the actual costs of GME beyond the direct costs.

The Council also found it extremely difficult to clearly identify the manner through which GME is financed in ambulatory settings. It would be useful to have a study which provides such data and suggests improvements in reimbursement methods.

Precise assessment of the effects of any reduction in the number of FMG residents is difficult because the available data bases on programs and hospitals do not contain data on the number of FMG residents. Although Policy Analysis, Inc., was able to analyze such data on hospitals which were members of COTH, more specific analysis could be undertaken if the locations of all the FMG residents were known.

Although some testimony suggested that FMG residents could potentially be replaced by some combination of U.S. medical school graduates, attending physicians, nurse practitioners, and physician assistants, this issue is quite complicated and varies by specialty. It is important to resolve whether enough trained professionals exist, whether they would be willing to work in the institutions currently served by the residents, and whether the institutions could afford to pay their salaries.

Despite the substantial increase in the supply of physicians in recent years, the Council has noted that several geographic areas and population groups remain underserved. Analyses assessing recent trends in this area are limited, however.

A considerable amount of recent statistical information is available on the health status and services utilized by various population groups in the United States. Nevertheless, it is difficult to draw definitive conclusions about changes in the access to care in recent years.

The National Health Interview Survey (NHIS) conducted annually by NCHS remains the principal source of data regarding this subject. In 1986, physician contacts per person per year rose slightly to 5.4, from 5.3 in 1985 and 5.1 in 1984, while inpatient hospital use declined. The number of days of restricted activity due to acute and chronic conditions rose slightly in 1986, but the proportion of the population which is limited in major activity decreased slightly. Although tabulations of NHIS data reveal significant differences in health status and utilization across population groups, especially by age, the data do not reveal any significant patterns over time.

Another survey, however, the National Access Survey (NAS) sponsored by the Robert Wood Johnson Foundation in 1982 and 1986, contains additional questions related to access. While consumers were generally satisfied with the care they received in 1986, about 16 percent of the population reported needing care, but had difficulty obtaining it; about 8 percent encountered economic barriers to receiving various kinds of health services. Over 18 percent of the respondents who had chronic or serious illnesses had not had a physician visit in the prior 12 months. NAS is a telephone survey with a smaller sample than that of NHIS, which relies on household interviews conducted in person. To identify particular areas of underservice, additional household surveys would be useful.

It is difficult to accurately estimate the size of the uninsured population. NAS estimated that 9 percent (about 22 million people) were uninsured in the 1986 survey. This compares with nearly 15.6 percent (about 37 million people) uninsured from the March 1987 Bureau of the Census Current Population Survey (CPS). Although NAS collects detailed information on health status and health service utilization, CPS probably provides a more complete estimate of the size of the uninsured population because it is not restricted to households with telephones.

Trend data are available from CPS for several recent years. These data show little effect of the economic expansion on the size of the uninsured population. Indeed, the proportion of the population which was uninsured rose from 14.3 to 15.6 percent from 1983 to 1987 even though the unemployment rate fell from 9.5 percent to 6.1 percent. Furthermore, health insurance policies differ substantially in the degree to which they cover the health care expenses of families or individuals. In addition to the uninsured population, several million other Americans have policies with only minimal coverage for such expenses.

Although data from national surveys indicate differences in health status and the utilization of health services among population groups and geographic areas, the reasons for these differences are not well known. Studies have documented the importance of certain variables such as income, education, and insurance coverage in explaining utilization rates, especially for preventive services. Yet these studies also indicate a great deal of unexplained variation among individuals, and the possible reasons for this variation have different policy implications. If, for example, people underutilize care which would be appropriate for their level of health status because of lack of resources, then the addition of new health care providers in an area might increase utilization. If these individuals underutilize care because of ingrained patterns of behavior, however, additional providers may not be sufficient. Outreach campaigns and other educational activities may be necessary.

In sum, although many conclusions and recommendations have been developed by the Council in this first report, data and research inadequacies represented a major constraint. In view of this situation, the Council plans a thorough examination of the data base and research issues following submission of its first report. A separate subcommittee will be established to devote its attention to these issues.

The Council called for specific studies in four of its recommendations: the development of a methodology for reimbursement of direct and indirect costs of ambulatory training (Recommendation 18), the demonstration of alternative methods of payment for GME in ambulatory and nontraditional settings (Recommendation 19), the study of unexplained variations in direct costs of GME (Recommendation 22), and the study of the extent to which the higher costs of teaching hospitals are appropriately considered as indirect costs of GME (Recommendation 23).

> ***Recommendation 42.*** **Adequate public and private sector funding should be provided to support the demonstration models, studies, and data-related activities recommended in this report.**

The Council reviewed estimates of the fiscal resources available to support its data and study needs for both its next mandated report (due by July 1, 1991) and for additional interim reports that may be needed. The Council estimated that to adequately fund costs for data and analytic studies that cannot be done by staff, and support costs, such as meetings, travel, and staff, it should request an authorization and appropriation of $1.5 million per year.

> ***Recommendation 43.*** **The Council recommends that annual authorization and appropriation levels of $1.5 million be provided to it to assure that adequate resources are available to support its analytic agenda and cover its staff and meeting expenses.**

> ***Recommendation 44.*** **Wherever possible and appropriate, encouragement should be given to collaborative public and private sector data collection and research efforts in the area of physician manpower.**

V. Long-Term Agenda Considerations

The Council fills a substantial need for a public focus for data gathering and analysis regarding GME issues. It provides a forum for developing consensus on physician manpower-related issues such as changes in financing GME, changes in the content of undergraduate medical education and GME programs, minority representation in medicine, access to care for certain populations, and FMGs. The process of long-range planning and agenda development for the Council is evolutionary; issues at any one time may be chosen by timeliness and the need for them to be addressed, modified by data availability and limitations.

Major activities of the Council for the period 1988-91 are expected to focus on the adequacy of specialty-specific physician supply and a continuing review of the financing of GME. Special emphasis will be placed on financing medical education in ambulatory settings. The Council also plans to review the need for a broad-based study of medical education in the United States (the considerations for such a study are detailed in Volume II of this report).

As noted earlier, the Council is authorized for ten years, through September 30, 1996. Its next report is due by July 1, 1991. During the course of its deliberations for this report, the Council found that both time and resources precluded treating all issues in full detail.

The Council will be working over the summer to develop the specifics of its long-term agenda for 1988-91, with the expectation that it will be finalized at its November 1988 meeting. An informal transition committee has been established to oversee this work.

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VII. Glossary of Key Terms

Accreditation Council for Graduate Medical Education (ACGME):
The ACGME is an organization that sets the standards for residency training and voluntary accreditation of graduate medical education in the United States, by establishing general requirements and approving specific requirements for specialty residency training programs proposed by the residency review committees (RRCs). It is sponsored jointly by the American Board of Medical Specialties, the American Hospital Association, the American Medical Association, the Association of American Medical Colleges, and the Council of Medical Specialty Societies. (Maass and Wilbur, 1982)

Adjusted-Needs Based Model:
The model that GMENAC (see below) developed for estimating physician requirements for 1990 by specialty. The model incorporated needs-based components tempered by what the Committee considered to be "realistically achievable" by 1990.

Ambulatory Sites, Training, etc.:
Exclusionary definition, encompassing places where noninpatient care is provided and noninpatient training takes place. Includes clinics, both hospital-based (such as hospital outpatient clinics) and free-standing, as well as physician offices. Where as a rule the patient can walk in.

American Board of Medical Specialties (ABMS):
The primary function of the ABMS is to assist its members in the process of evaluating and certifying physician specialists. The membership of the ABMS consists of regular members (member boards) and associate members. There are 23 specialty boards which make up the regular members, including 21 primary boards, one conjoint board, and one conjoint board (modified). The associate members are five national organizations concerned with graduate medical education and medical and specialty practice. Twenty-four specialties are referred to rather than 23, because 2 specialties (psychiatry and neurology) share one board but have individual residency review committees (RRCs). However, several boards and RRCs are responsible for more than one specialty or subspecialty, resulting in a total of 31 specialties for which general certificates are awarded, and 50 subspecialties for which certificates of special qualifications or certificates of added qualifications are awarded. (American Board of Medical Specialties, 1987)

Cognitive and Procedural Services:
Generic terms. "Cognitive" refers to services involving application of physician skills of data gathering, analysis, case management, and judgment relating to prevention, diagnosis, and treatment of health problems; not fundamentally provision of a procedure. These services are frequently performed and identified as a "visit" for purposes of reimbursement. "Procedural" services are those which, while also involving analysis and judgment, primarily involve the performance of an action nearly always using equipment and reimbursed by individual procedure and separately from a "visit."

Council of Medical Specialty Societies (CMSS):
The CMSS was founded in 1965 as the Tri-College Council by the American College of Obstetricians and Gynecologists, the American College of Physicians, and the American College of Surgeons. CMSS adopted its current name in 1967, as other specialty societies joined. Today, all 24 major specialties with certifying boards sanctioned by the American Board of Medical Specialties are represented on the CMSS. The primary goals of the CMSS are said to be to foster excellence in the education of physicians, to improve the quality of medical care in the United States, and to provide a forum for the exchange of information on issues of mutual concern in specialized medicine. (Maass and Wilbur, 1982)

Council of Teaching Hospitals (COTH):
The COTH is a part of the governance structure of the Association of American Medical Colleges, along with the Council of Deans, the Council of Academic Societies, and the Organization of Student Representatives. It has 435 member hospitals and provides representation and services related to the special needs, concerns, and opportunities facing major teaching hospitals in the United States. Teaching hospital membership is limited to those hospitals which sponsor or significantly participate in at least four approved, active residency programs, at least two of which must be in the following specialty areas: internal medicine, surgery, obstetrics-gynecology, pediatrics, family practice, or psychiatry (exceptions to the requirement of four residency programs can be provided in the case of specialty hospitals).

Demand:
An economic concept that has been used to measure requirements for physician manpower; a multivariate functional relationship between the quantities of medical services that the population desires to consume over a relevant time period at given levels of prices of goods and services, financial resources, size, and psychological wants of the population as reflected by consumer taste and preferences for (all) goods and services. To be distinguished from need, which has also been used to measure requirements. Among the more prominent models for estimating requirements for physician manpower using concepts of demand is the demand-utilization model maintained by the Bureau of Health Professions.

Diagnosis-Related Group (DRG):
A classification system used in the Medicare Prospective Payment System (PPS) to determine the amount a hospital receives for the hospitalization of a Medicare patient. This is done by assigning a reimbursement weight to each DRG to adjust the payment for each admission based on an average resource consumption for that DRG. The system groups diagnoses, age groups, and presence of complications or comorbidity into groups that are intended to be relatively homogeneous in resource consumption (this homogeneity is thought to be variable, especially for "medical" as opposed to "surgical" DRGs, and the DRGs are presently unable to take variations in severity of disease into account). To define the DRGs, the 12,000 diagnostic codes of the ICD-9-CM classification system were grouped into 23 major diagnostic categories, most defined by organ system, and then further subdivided into clusters of diagnoses, procedures, age and presence of complications/comorbidities. Hospitalized patients are assigned to one DRG according to precise "partitioning" rules; the presence of an operating room procedure takes precedence in partitioning into a DRG. The rules require DRG assignment to be based on the "principal diagnosis," defined as that condition which on review is determined to have been the reason for hospital admission. Thus, the principal diagnosis is not necessarily the most clinically important or the most resource-intensive diagnosis.

Direct Medical Education Costs:
A term originated for use in the Medicare Prospective Payment System (PPS); most payers do not specifically identify a separate category of such costs. As defined by Medicare, these are the allowable costs of approved medical education activities, which include approved clinical, hospital-based training programs for physicians, nurses, and certain allied health professionals, e.g., physical therapists. The allowable costs include the salaries and fringe benefits of interns and residents, teaching physicians' salaries, classroom costs, and the costs appropriately allocated to the medical education cost center, such as institutional overhead, medical records, etc. (It is not correct to describe the latter associated costs as "indirect" in this accounting method.)

Educational Commission for Foreign Medical Graduates' (ECFMG) Medicine Examination:
This examination was designed by ECFMG as a comprehensive test of the applicant's knowledge in the principal fields of medicine. Most of the questions were chosen from the clinical fields of internal medicine, surgery, obstetrics and gynecology, and pediatrics. One-fourth of the questions were chosen from the basic medical sciences of anatomy, behavioral science, biochemistry, microbiology, pathology, pharmacology, and physiology. The questions were selected by the ECFMG Test Committee from the large pool of examination questions maintained by the National Board of Medical Examiners (NBME). Every question used in the examination had been previously used in at least one examination of the NBME for at least 5,000 students or graduates of U.S. medical schools. It was a written examination which consisted of 420 multiple-choice questions taken at one sitting. This examination was replaced by the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS) in 1984.

Exchange Visitor (J visa):
An alien having a residence in a foreign country which he/she has no intention of abandoning, who is a *bona fide* student, scholar, trainee, teacher, professor, research assistant, specialist or leader in a field of specialized knowledge or skill, or other person of similar description, who is coming temporarily to the United States as a participant in an Exchange Visitor Program.

Faculty Practice Plan (FPP):
The principal mechanism for organizing, collecting, and disbursing faculty practice income, also known as a medical or clinical practice plan. These have been described by the Association of American Medical Colleges as "any regular system (in the environment of the academic medical center) for managing the financial and other aspects of medical practice for the clinical faculty," i.e., as a means by which medical schools have developed formal policies and procedures governing the manner in which faculty physicians provide services to patients, securing reimbursement, and utilizing the resulting funds. In the most recent report, only 12 of 99 reporting medical schools did not have a practice plan for their institution (Jolly and Smith, 1981). FPPs are important for providing institutional negotiation and control of the faculty's engagement and incentives to engage in practice as well as for collecting and disbursing faculty income. Distribution of plan income within medical schools, usually described only in general terms, is said to amount to transfers to parent institution/medical school/accounts for departmental support, direct physician compensation and fringe benefits, and other operating expenses.

Federation Licensing Examination (FLEX):
The Federation of State Medical Boards in cooperation with the National Board of Medical Examiners developed the FLEX Program. It consists of two complementary components: Component 1 evaluates measurable aspects of knowledge and understanding of basic and clinical science principles and mechanisms underlying disease and modes of therapy. Component 2 samples the cognitive and additional abilities required of a physician in assuming independent responsibility for the general delivery of health care to patients. The FLEX is used by all medical licensing jurisdictions in the United States as a qualifying examination for licensure.

Foreign Medical Graduate (FMG):
A physician who graduated from a medical school outside of the United States and, usually, Canada. U.S. citizens who go to medical school outside this country are classified as foreign medical graduates (sometimes distinguished as USFMGs), just as are foreign-born persons who are not trained in a medical school in this country. The term is occasionally defined as, and nearly synonymous with, any graduate of a school not accredited by the Liaison Committee on Medical Education.

Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS):
An examination designed cooperatively by the Educational Commission for Foreign Medical Graduates (ECFMG) and the

National Board of Medical Examiners (NBME) to assess knowledge in the basic medical and clinical sciences. FMGEMS is made up of approximately 950 test items in a multiple-choice format. All items in the examination are drawn from the pool of examination items owned by the NBME. Day 1 (applicant must have completed two years of medical school prior to sitting for this exam) of the examination covers the basic medical sciences, and Day 2 (applicant must be within 12 months of completion of the full didactic curriculum prior to sitting for exam) covers the clinical sciences. A scale score is reported for the total group of items in the basic medical sciences and the total group of items in the clinical sciences. To pass FMGEMS, a scale score of 75 must be achieved in the basic medical science component and also in the clinical science component. In 1984 the Secretary of Health and Human Services determined that this examination was equivalent to NBME Parts I and II for the purposes of Public Law 94-484. This examination replaced the former ECFMG medicine examination and the Visa Qualifying Examination in 1984.

Graduate Medical Education National Advisory Committee (GMENAC):

Chartered from 1976 through 1980. Carried out the only U.S. study of needs-based requirements by individual specialties. In its final report issued in 1980, the committee concluded that in 1990 there would be 70,000 more physicians than required to provide physician services, and 145,000 by 2000. An oversupply was projected for most specialties. In the area of primary care, however, the specialties of osteopathic general practice, family practice, general internal medicine, and general pediatrics (and its subspecialties) were projected to be in "near balance," defined as projected supply within 85 to 115 percent of projected requirements. Specialties for which requirements were projected to exceed supply included child and general psychiatry, physiatry, emergency medicine, and preventive medicine. It should be noted that subsequent to the GMENAC effort, its needs-based methodology was applied to six specialties that had not been completed by GMENAC. This application raised the requirements for those specialties and resulted in reducing GMENAC's projected oversupply from 70,000 to 63,000 physicians.

Graduate Medical Education (GME):

Medical education given after receipt of the M.D., D.O. or equivalent degree, including the education received as an intern, resident, or fellow. This use contrasts with that in general education where graduate education refers to graduate school education leading to a master's, doctoral, or equivalent degree (called undergraduate medical education in medicine). It is sometimes limited to education required for specialty board certification. Education at this level usually includes supervised practice, research, and some teaching, as well as didactic learning.

Health Education Assistance Loan (HEAL) Program:

This program was authorized under Section 727 of the Public Health Service Act in 1976 to insure loans provided by non-Federal lenders for students attending eligible health profession schools. It is a federally insured loan program for eligible students in schools of medicine, osteopathy, dentistry, veterinary medicine, optometry, podiatry, public health, pharmacy, chiropractic, or in programs in health administration, clinical psychology, or allied health.

Health Manpower Shortage Area (HMSA):

Defined as any of the following which the Secretary of Health and Human Services determines has a shortage of health manpower: (1) an urban or rural area (which need not conform to geographic boundaries of a political subdivision and which is a rational area for the delivery of health services), (2) a population group, or (3) a public or nonprofit private medical facility. The criteria for determining a shortage vary for each of the three areas listed above. A *geographic area* will be designated as having a shortage of primary medical care manpower if criteria are met for a rational delivery area for primary care services; there is a ratio of population to full-time-equivalent (FTE) primary care physician of at least 3,000 to 3,500:1; and primary medical care manpower in contiguous areas are overutilized, distant, or inaccessible. *Specific population groups* will be designated as having a shortage of primary medical care manpower if the area in which they reside is rational for the delivery of primary medical care services, access barriers prevent the population group from use of the area's primary medical care providers, and there is a ratio of population group to primary care physician of at least 3,000:1. *Facilities* which may be designated include Federal and State correctional institutions and youth detention facilities, and public or nonprofit private medical facilities.

Indirect Medical Education Costs:

As defined by Medicare, the additional operating (i.e., patient care) costs incurred by hospitals with graduate medical education programs. These costs are reimbursed as a percentage of the total DRG payment to the hospital (see Indirect Medical Education (IME)/Teaching Adjustment, below), and are not to be confused with the concept of indirect costs as a percentage of educational costs alone. An example is the additional tests ordered by residents over and above those normally ordered by experienced physicians. It is not known precisely what part of these higher costs are due to teaching (more tests, more procedures, etc.) and what is due to other factors (the particular types of patients which a teaching hospital may attract), although it is clear that costs per case are higher in teaching hospitals even after other factors such as case mix are taken into account. Some additional costs appear to result from additional demands on other staff and higher staffing levels. It has been shown that the process of graduate medical education results in more intensive treatment regimens.

Indirect Medical Education (IME)/Teaching Adjustment:

A lump-sum payment, distinct from the DRG base payment rate and based on a formula developed to determine an adjustment to the reimbursement limits for teaching hospitals for their indirect medical education costs, as defined above. The formula is designed to provide an allowance for the higher costs associated with teaching institutions and is derived from an analysis of the relationship of costs per case to the ratio of interns and residents to hospital beds.

Intern or Resident:
An individual who has graduated from allopathic or osteopathic medical school (in receipt of an M.D. or D.O. degree) and is in an approved medical residency program as required to become certified by an approved medical specialty board. Also includes graduates of programs in dentistry and podiatry who are in clinical training in a hospital.

Medically Underserved Area:
Defined as an urban or rural area designated by the Secretary of Health and Human Services as an area with a shortage of personal health services. The basis for identifying medically underserved areas is the index of medical underservice which is obtained by applying weights to data on the following indicators: (1) ratio of primary care physicians to population, (2) infant mortality rate, (3) percentage of the population which is age 65 or over, and (4) percentage of the population with family income below the poverty level.

Model:
A system of postulates, data, and inferences presented as a mathematical description of an entity or state of affairs. In physician manpower planning and analysis, models have been constructed, for example, to project supply of and estimate requirements for physician manpower. Models have also been developed to relate components of either physician supply or requirements (e.g., the number of residents in graduate medical education as a component of supply) to policy variables (e.g., resident stipends) used to simulate the effects of these policy variables in these components.

National Board of Medical Examiners' Examination Parts I, II, and III (NBME I, II, and III):
An examination designed to assess knowledge in the basic medical and clinical sciences. (The NBME is a private voluntary organization that draws upon medical faculty and administrators throughout the Nation to prepare the examination material through its 15 test committees.) Part I is a two-day written (multiple-choice) examination in the basic medical sciences, including questions on anatomy, behavioral sciences, biochemistry, microbiology, pathology, pharmacology, and physiology. Part II is also a two-day multiple-choice examination, covering the clinical sciences and including approximately the same number of questions in each of the following subjects: internal medicine, obstetrics and gynecology, pediatrics, preventive medicine and public health, psychiatry, and surgery, each with related subspecialties. Part III consists of three sections, the first of which is a multiple-choice examination covering therapy and management. A second multiple-choice section relates to the interpretation of clinical data presented primarily in graphic form such as pictures of patients, gross and microscopic lesions, electrocardiograms, roentgenograms, charts, and graphs. The third section, patient management problems, utilizes a programmed testing technique (answer by an exposure technique to uncover information or results of actions) designed to measure the examinee's clinical judgment in the management of patients. Access to these examinations is limited to students and graduates of U.S. and Canadian medical schools accredited by the Liaison Committee on Medical Education.

National Health Service Corps (NHSC) Program:
A Federal program created by the Congress in 1970 (P.L. 91-623) as a component of the U.S. Public Health Service. Its mission is to improve the delivery of health services in Health Manpower Shortage Areas by providing health professionals and other health resources. Currently more than 3,300 NHSC members are delivering primary care to over 2 million underserved people in 1,600 communities.

National Resident Matching Program (NRMP):
Originally the National Intern Matching Program and then the National Intern and Resident Matching Program, this was established in 1952 by U.S. medical schools and teaching hospitals to provide an orderly process for the matching of candidates for internships and residencies (usually those who have just graduated from medical school) with residency training positions. The process calls for rank ordering of preferences by both applicant candidates and the teaching institution, a match between the two using complex decision rules, and a uniform announcement date for the matching of residents to positions. It should be noted that this is a voluntary program and not all applicants match through this program. It became the NRMP in 1978, and the provision of data on graduate medical education was added to its functions.

Need:
That quantity of medical services which expert medical opinion believes necessary over a relevant time period for the population to remain or become healthy as permitted by existing medical knowledge. This concept has been used to determine requirements for physician manpower. It is to be distinguished from demand, also used to determine requirements.

Oversupply (Undersupply):
The amount by which the supply of physicians exceeds (is exceeded by) requirements.

Permanent Resident:
An alien who has been lawfully admitted to the United States for permanent residence. A permanent resident may apply for citizenship through naturalization, if he/she so chooses, after he/she has resided in the United States for five years (three years if he/she has been married to a U.S. citizen for three years).

PGY (Postgraduate Year):
Used to designate the academic year(s) of residency training for a medical graduate, e.g., PGY-1, PGY-2. The more common usage of PGY-1, used in the body of this report, is to indicate the entry year of residency training following the receipt of the medical degree ("R-1" is then used to indicate the first year of training programs that require previous GME). A less common usage, preferred for statistical reporting and used in the Overview of Medical Education in this report, uses the term "GY-1" to indicate the entry year of residency training where no previous GME is required. This convention uses "PGY-1" to indicate the first year of training in all specialties including those where prior residency training is required.

Physician Assistant:
An individual who is qualified by academic and clinical training to provide patient care services under the supervision of a doctor of medicine or osteopathy.

Primary Care:
Classically defined by Alpert and Charney (1973) as care which (1) is first-contact care, at the interface of the patient and the health care system; (2) assumes longitudinal responsibility for the patient regardless of the presence or absence of disease; and (3) serves as the "integrationist" of care for the patient. The Institute of Medicine has provided another key definition which spells out attributes of accessibility, comprehensiveness, coordination, continuity, and accountability (IOM, 1978). It should be noted that the Physician Payment Review Commission has recently recommended to Congress that Medicare-reimbursed fees for primary care services receive a greater percentage increase than other services. For purposes of this particular recommendation, primary care services were defined as office visits, house calls, nursing home visits, and emergency room care.

Primary Care Specialties:
The Bureau of Health Professions considers the primary care specialties to be family practice (general practice in osteopathic medicine), general internal medicine, and general pediatrics; legislative grant activities are restricted to these specialties. The American Medical Association adds obstetrics/gynecology as a primary care specialty. Many other specialties consider that their practitioners provide primary care to their regular patients. For the purpose of this report, family practice (general practice in osteopathic medicine), general internal medicine, and general pediatrics are defined as the primary care specialties.

Prospective Payment System (PPS):
The system enacted by Congress in 1983 and implemented beginning October 1983 which reimburses acute-care general hospitals on a per-admission basis. The amount of payment is weighted according to the diagnosis-related group (DRG) for the admission and is further adjusted as described below. The PPS was phased in from a 25 percent regional Federal rate/75 percent hospital-specific rate initially to a 100 percent national Federal rate at the present time. In general, prospective payment refers to a method of paying hospitals or other health programs in which amounts or rates of payment are established in advance for the coming year, and the programs are paid these amounts regardless of the costs they actually incur. These systems of reimbursement are designed to introduce a degree of constraint on charge or cost increases by setting limits on amounts paid during a future period. Accordingly, hospitals incur at least some financial risk of their actual costs' exceeding the predetermined payment amounts. This is intended to provide hospitals with an incentive to reduce costs because reimbursement is predetermined. The basic features of the Medicare PPS provide that (1) all patients will be classified into 1 of 470 DRGs; (2) with the exception of a very limited number of "outlier" patients, the hospital will receive a fixed payment per DRG to cover inpatient operating costs (capital and direct medical education costs are reimbursed on a cost basis with recently legislated caps on annual increases); and (3) the payment received by a hospital will vary with area wages and urban or rural location. In addition, there is an indirect teaching adjustment which is based on the number of house staff per bed in the hospital. Excluded from the new system and reimbursed on a cost basis are (1) psychiatric, rehabilitation, long-term, and children's hospitals and (2) psychiatric and rehabilitation units in general hospitals. In addition, acute-care hospitals in Maryland and New Jersey are excluded because these States have alternative reimbursement programs under a waiver from Medicare.

Requirements:
The number of physicians needed to fulfill some predetermined standard for the amount of care needed or demanded. (See *Need, Demand,* and *Adjusted Needs-Based Model.*)

Residency Review Committee (RRC):
There is an RRC for each of 24 specialty areas. Each consists of representatives appointed by the American Medical Association, the appropriate specialty board (there are separate RRCs for psychiatry and neurology, which are under one board), and, in some cases, a national society. Some boards, and therefore some RRCs, are responsible for more than one specialty or subspecialty, so that there are a total of 31 specialties for which "general" certificates are awarded, and 50 subspecialties for which certificates of either "special" qualifications or "added" qualifications are awarded. Each RRC is a group of volunteer physicians in that specialty, which meets regularly to review information about individual training programs in the specialty to determine the programs' accreditation status. The accreditation function is a responsibility of the Accreditation Council for Graduate Medical Education, but is currently delegated to the RRC for each specialty area. (Grenholm, 1988)

Shortage (Economic):
A situation in which the quantity demanded exceeds the quantity supplied at the prevailing price.

Supply:
The number of physicians in a market area, usually at a given time.

Surplus (Economic):
A situation in which the quantity supplied exceeds the quantity demanded at the prevailing price.

Undergraduate Medical Education:
Medical education given before receipt of the M.D., D.O. or equivalent degree, usually the four years of study in medical, osteopathic, dental, or podiatric school leading to a degree. This use contrasts with that in general education, in which undergraduate refers to college education leading to the bachelor's degree.

Underrepresented Minority:
As defined by the Association of American Medical Colleges, using the population parity model, a group is considered underrepresented if the percentage of a specific racial/ethnic group in the physician population is less than that group's percentage in the total population. Thus, Blacks, Native Americans (American Indians, Eskimos, Aleuts), and Hispanics (specifically Mexican Americans and mainland Puerto Ricans) are currently considered "underrepresented" in the medical profession.

Visa Qualifying Examination:
This examination was developed in response to 1976 and 1977 amendments to the Immigration and Nationality Act. This examination was also one of the requirements for obtaining

a visa to enter the United States for the purpose of participating in graduate medical education. This was a two-day examination which was developed and offered by the National Board of Medical Examiners and composed approximately equally of basic science and clinical science test items in their customary multiple-choice format. This examination was replaced by the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS) in 1984.

Weighted average:
This is an average, usually of ratios, proportions, or percentages, that takes into account the varying sizes of the denominators of the items being averaged. For example, a simple average across States of physician-to-population ratios could be misleading if the ratios of larger States were not weighted according to the larger population. Hence, weighted averages are preferable in such cases. Technically, it is the sum obtained by multiplying factors, called weights, times the averages, or means, of two or more related variables. Each weight is proportional to the total number of observations, and the sum of the weights must equal one. (Anderson and Zelditch, 1975)

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Appendices

A. Legislation and Charter for the Council on Graduate Medical Education

B. Department of Health and Human Services and Congressional Consultations, May 4-5, 1987

PUBLIC LAW 99-272—APR. 7, 1986

CONSOLIDATED OMNIBUS BUDGET RECONCILIATION ACT OF 1985

TITLE XVII—GRADUATE MEDICAL EDUCATION COUNCIL AND TECHNICAL AMENDMENTS TO THE PUBLIC HEALTH SERVICE ACT

SEC. 17001. COUNCIL ON GRADUATE MEDICAL EDUCATION.

Title VII of the Public Health Service Act is amended by adding at the end thereof the following new part:

"PART H—GRADUATE MEDICAL EDUCATION

"COUNCIL ON GRADUATE MEDICAL EDUCATION

42 USC 296.

"SEC. 799. (a) There is established the Council on Graduate Medical Education (hereafter in this section referred to as the 'Council'). The Council shall—

"(1) prior to July 1, 1988, and every three years thereafter, provide advice and make recommendations to the Secretary and to the Committees on Labor and Human Resources, and Finance of the Senate and the Committees on Energy and Commerce and Ways and Means of the House of Representatives, with respect to—

"(A) the supply and distribution of physicians in the United States,

"(B) current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties,

"(C) issues relating to foreign medical school graduates,

"(D) appropriate Federal policies with respect to the matters specified in subparagraphs (A), (B), and (C), including policies concerning changes in the financing of undergraduate and graduate medical education programs and changes in the types of medical education training in graduate medical education programs,

"(E) appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to the matters specified in subparagraphs (A), (B), and (C), including efforts for changes in undergraduate and graduate medical education programs, and

"(F) deficiencies in, and needs for improvements in, existing data bases concerning the supply and distribution of, and post-graduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies; and

"(2) encourage entities providing graduate medical education to conduct activities to voluntarily achieve the recommendations of the Council under paragraph (1)(E).

"(b) The Council shall be composed of—

"(1) the Assistant Secretary for Health or the designee of the Assistant Secretary;

"(2) the Administrator of the Health Care Financing Administration;

"(3) the Chief Medical Director of the Veterans' Administration;

"(4) 6 members appointed by the Secretary to include representatives of practicing primary care physicians, national and specialty physician organizations, foreign medical graduates, and medical student and house staff associations;

"(5) 4 members appointed by the Secretary to include representatives of schools of medicine and osteopathy and public and private teaching hospitals; and

"(6) 4 members appointed by the Secretary to include representatives of health insurers, business, and labor.

"(c)(1) Members of the Council appointed under paragraphs (4), (5), and (6) of subsection (b) shall be appointed for a term of 4 years, except that the term of office of the members first appointed shall expire, as designated by the Secretary at the time of appointment, 4 at the end of one year, 4 at the end of 2 years, 3 at the end of 3 years, and 3 at the end of 4 years.

"(2) The Secretary shall appoint the first members to the Council under paragraphs (4), (5), and (6) of subsection (b) within 90 days after the date of enactment of this section.

"(d) The Council shall elect one of its members as Chairman of the Council.

"(e) Nine members of the Council shall constitute a quorum, but a lesser number may hold hearings.

"(f) Any vacancy in the Council shall not affect its power to function.

"(g) Each member of the Council who is not otherwise employed by the United States Government shall receive compensation at a rate equal to the daily rate prescribed for GS-18 under the General Schedule under section 5332 of title 5, United States Code, for each day, including travel time, such member is engaged in the actual performance of duties as a member of the Council. A member of the Council who is an officer or employee of the United States Government shall serve without additional compensation. All members of the Council shall be reimbursed for travel, subsistence, and other necessary expenses incurred by them in the performance of their duties.

"(h)(1) In order to carry out the provisions of this section, the Council is authorized to—

"(A) collect such information, hold such hearings, and sit and act at such times at 6 places, either as a whole or by subcommittee, and request the attendance and testimony of such witnesses and the production of such books, records, correspondence, memoranda, papers, and documents as the Council or such subcommittee may consider available; and

"(B) request the cooperation and assistance of Federal departments, agencies, and instrumentalities, and such departments, agencies, and instrumentalities are authorized to provide such cooperation and assistance.

"(2) The Council shall coordinate activities carried out under this section with the activities of the National Advisory Council on Health Professions Education under section 702 and with the activities of the Secretary under section 708. The Secretary shall, in cooperation with the Council and pursuant to the recommendations of the Council, take such steps as are practicable to eliminate deficiencies in the data base established under section 708 and shall make available in its reports such comprehensive data sets as are developed pursuant to this section.

42 USC 292b.
42 USC 292c.

Reports.

"(i) In the reports required under subsection (a), the Council shall specify its activities during the period for which the report is made.

Termination.

"(j) The Council shall terminate on September 30, 1990."

THE SECRETARY OF HEALTH AND HUMAN SERVICES
WASHINGTON, D.C. 20201

C H A R T E R

COUNCIL ON GRADUATE MEDICAL EDUCATION

Purpose

The Secretary is charged under Title VII of the Public Health Service Act with responsibility for taking national leadership in the development of programs addressed to graduate medical education and in the research, development, and analysis of programs that impact on the health manpower needs of this Nation. Part H of Title VII establishes this Council, and charges it with assessing physician manpower needs on a long term basis, recommending appropriate Federal and private sector efforts necessary to address these needs, and providing a forum to enable appropriate consideration of changing medical personnel needs.

Authority

42 U.S.Code 293i; Part H, section 799, of Title VII of the Public Health Service Act as amended by Public Law 99-272. The Council is governed by provisions of Public Law 92-463 (5 U.S.C. Appendix II), which sets forth standards for the formation and use of advisory committees.

Functions

The Council on Graduate Medical Education shall provide advice and make recommendations to the Secretary and to the Committees on Labor and Human Resources, and Finance of the Senate and the Committees on Energy and Commerce and Ways and Means of the House of Representatives, with respect to: (A) the supply and distribution of physicians in the United States; (B) current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties; (C) issues relating to foreign medical school graduates; (D) appropriate Federal policies with respect to the matters specified in (A), (B), and (C) above, including policies concerning changes in the financing of undergraduate and graduate medical education programs and changes in the types of medical education training in graduate medical education programs; (E) appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to the matters specified in (A), (B), and (C) above, including efforts for changes in undergraduate and graduate medical education programs; and (F) deficiencies in, and needs for improvements in, existing data bases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies.

The Council is to encourage entities providing graduate medical education to conduct activities to voluntarily achieve the recommendations of this Council under paragraph (E) above.

In order to carry out the provisions of section 799, the Council is authorized to (A) collect such information, hold such hearings, and sit and act at such times and places, either as a whole or by subcommittee, and request the attendance and testimony of such witnesses and the production of such books, records, correspondence, memoranda, papers, and documents as the Council or such subcommittee may consider available; and (B) request the cooperation and assistance of Federal departments, agencies, and instrumentalities, and such departments, agencies, and instrumentalities are authorized to provide such cooperation and assistance.

The Council shall coordinate activities carried out under section 799 with the activities of the National Advisory Council on Health Professions Education under section 702 and with the activities of the Secretary under section 708. The Secretary shall, in cooperation with the Council and pursuant to the recommendations of the Council, take such steps as are practicable to eliminate deficiencies in the data base established under section 708 and shall make available in its reports such comprehensive data sets as are developed pursuant to section 799.

Structure

The Council shall be composed of 17 members: (1) the Assistant Secretary for Health or the designee of the Assistant Secretary; (2) the Administrator of the Health Care Financing Administration; (3) the Chief Medical Director of the Veterans' Administration; (4) six members appointed by the Secretary to include representatives of practicing primary care physicians, national and specialty physician organizations, foreign medical graduates, and medical student and house staff associations; (5) four members appointed by the Secretary to include representatives of schools of medicine and osteopathy and public and private teaching hospitals; and (6) four members appointed by the Secretary to include representatives of health insurers, business, and labor.

Members of the Council appointed under (4), (5) and (6) above shall be appointed for a term of four years, except that the term of office of the members first appointed shall expire, as designated by the Secretary at the time of appointment, four at the end of one year, four at the end of two years, three at the end of three years, and three at the end of four years.

The Council shall elect one of its members as Chairman of the Council. Nine members of the Council shall constitute a quorum, but a lesser number may hold hearings. Any vacancy in the Council shall not affect its power to function. Members may serve after the expiration of their term until their successor has taken office.

Management and staff services shall be provided by the Bureau of Health Professions, Health Resources and Services Administration.

Meetings

Meetings shall be held at least three times per year at the call of the Chair and with advance approval of a Government official who shall also approve the agenda. A Government official shall be present at all meetings.

Meetings shall be open to the public, except as determined otherwise by the Secretary. Notice of all meetings shall be given to the public.

Meetings shall be conducted, and records of the proceedings kept, as required by applicable laws and departmental regulations.

Compensation

Each member of the Council who is not otherwise employed by the United States Government shall receive compensation at a rate equal to the daily rate prescribed for a GS-18 under the General Schedule under section 5332 of title 5, United Sates Code, for each day, including travel time, when such member is engaged in the actual performance of duties as a member of the Council. A member of the Council who is an officer or employee of the United States Government shall serve without additional compensation. All members of the Council shall be reimbursed for travel, subsistence, and other actual and necessary expenses incurred by them in the performance of their duties.

Annual Cost Estimate

Estimated annual cost for operating the Council, including compensation and travel expenses for members but excluding staff support, is $140,400. Estimate of annual man-years of staff support required is 1.5, at an estimated annual cost of $77,774.

Reports

Prior to July 1, 1988, and every three years thereafter, the Council shall prepare and transmit a report, to the Secretary and to the Committees on Labor and Human Resources, and Finance of the Senate and the Committees on Energy and Commerce and Ways and Means of the House of Representatives, with respect to (A), (B), (C), (D), (E), and (F) under Functions above. In these reports, the Council shall specify its activities during the period for which the report is made.

In addition, an annual report shall be submitted to the Secretary through the Assistant Secretary for Health not later than January 15 of each year, which shall contain at a minimum a list of members and their business addresses, the committee's functions, dates and places of meetings, and a summary of committee activities and recommendations made during the fiscal year. A copy of this report shall be provided to the Department Committee Management Officer.

-4-

Termination Date

The Council on Graduate Medical Education will terminate on September 30, 1996.

APPROVED:

JUN 6 1996
Date

Secretary

Council on Graduate Medical Education--
DHHS and Congressional Consultations
May 4-5, 1987

Background

The Council on Graduate Medical Education (COGME) is charged by statute to provide advice and make recommendations to the Secretary of the Department of Health and Human Services (HHS) and to the Congressional committees on Labor and Human Resources, and Finance of the Senate and the Committees on Energy and Commerce and Ways and Means of the House of Representatives. The Council is to issue its first report to the Secretary and the Congress on or before July 1, 1988.

In March 1987, the subcommittee and the plenary sessions of COGME included discussions which resulted in the development of a draft set of issues for consideration by the Council. These issues covered the areas, respectively, of physician manpower, foreign medical graduates, and graduate medical education programs and financing. Council members agreed that it would be timely to obtain informal reactions from HHS and the relevant Congressional committees as to the appropriateness of the issues under consideration.

On May 4 and 5, 1987, Neal A. Vanselow, M.D., Chairperson of the Council, undertook a series of informal consultations with key HHS and Congressional staff to review this matter. Mr. Paul M. Schwab, COGME Executive Secretary, joined Dr. Vanselow for the HHS and Congressional consultations; F. Lawrence Clare, M.D., COGME Program Staff Coordinator, joined Dr. Vanselow for the HHS consultations.

Consultation Summary

Throughout the consultations, there were a number of matters regarding the Council's first report to the Secretary and the Congress where persons consulted were in general agreement.

1. It does appear that the list of issues under consideration by COGME is on target; however, it is felt that the Council will need to be selective as to which issues it will focus on for its first report to the Secretary and the Congress.

2. The conclusions and recommendations in the first COGME report need to be persuasive; however, they can be qualitative in nature. There is no compelling need, for example, for the Council to derive quantitative assessments for each physician specialty. Nor is it expected, for example, that the Council adopt an effort to address specialty supply and requirements forecasting on the scale approached earlier by the Graduate Medical Education National Advisory Committee (GMENAC).

3. Given the current schedule for Congressional consideration of Health Professions Education reauthorization and the consideration of any future changes in Medicare support for graduate medical education (GME), the Council would likely have its maximum impact on the next round of executive/legislative branch deliberations by reaching its conclusions and recommendations in the February-April 1988 period. (NOTE: The COGME draft action plan agreed to at its March 1987 session calls for a review and discussion of the draft of the first COGME report at the February 17-19, 1988 meeting. Although the action plan calls for COGME approval of the first report at its May 1988 meeting, it is expected that the minutes of the February meeting should represent a useful working document for HHS and the Congress regarding the directions likely to be adopted by the Council for the areas of physician manpower, foreign medical graduates, and GME financing.)

It is important to note for the record that the consultations did convey the ongoing policies and concerns that have been registered to date by the Administration and respective Congressional committees. At the same time, however, the consultations suggested a real need for creative solutions to the problems being addressed by the executive and legislative branches and a real receptivity to the conclusions and recommendations that will be advanced by the Council. With regard to the list of issues developed by the Council, and notwithstanding the formal policy positions of the respective parties, the consultations did provide feedback on the direction and content that might be pursued by COGME. Following are highlights of this part of the discussions:

1. Physician Manpower

a. No consensus existed as to relying upon the market place or adopting regulatory approaches to remedying manpower concerns or achieving manpower objectives.

b. As a minimum, the first report should address needs regarding primary care versus all other physician specialties. References were made to recent residency trends in primary care specialties and implications for the provision of primary care medical services to underserved population groups.

c. The nonphysician substitutability issue (i.e., provision of health services by nonphysician providers and implications for physician specialty manpower) should not be dismissed for attention; however, it need not be considered a priority item in the context of the Council's charge. The matter of substitutability was also mentioned regarding the provision of primary care services by specialists and the provision of specialty services by primary care physicians.

d. Access to care was a pervasive issue. The geographic distribution of physicians in both inner city and rural areas continues to be an area of considerable concern. The provision of adequate care to the Medicare population was noted. Also, adequate care for the disabled population was also mentioned. Finally references were also made to the access implications of malpractice cost effects on obstetrical-gynecological services.

e. Among the consultations, only limited concern was expressed regarding the current and future adequacy of overall physician manpower supply (i.e., "surplus of physicians" and implications for costs of medical care) as a critical policy matter at this time.

f. Considerable attention was directed to concerns in the area of geriatric care and respective implications for physician manpower. Developments in long-term care and implications for physician manpower were also noted.

g. An expectation exists that the Council will speak to the matter of data inadequacies (this issue extends to other areas being addressed as well by the Council). References were made to the possible transferability of dental manpower experiences to the likely course for physician manpower.

2. Foreign Medical Graduates (FMGs)

a. Issues around FMG's and public policy represent a high priority item in Congressional examinations of GME-related matters.

b. Should the Council adopt any recommendations that would have the net effect of reducing the number of FMGs in this country, consideration would also need to be given by COGME to addressing any negative access consequences of such an outcome.

c. The matter of equity should be addressed by COGME if the Council adopts either recommendations specific to the entire FMG population or particular to either aliens or U.S. citizens studying abroad.

d. Although the matter of accrediting foreign medical schools arose in the consultations, there was no consistent set of views obtained either in support of or opposition to such a proposal.

e. Interest was consistently expressed in continuing an international exchange visitor program of one form or another.

f. In the context of both equity and quality, suggestions were made to adopt a very restrictive policy regarding the entry of FMGs into this country, followed by no difference in treatment extended to "successful entrants" and all other physicians in the U.S.

g. Selected information needs were identified.

1. Information by visa status on how many entrants are coming into the U.S. and in what category.
2. The extent to which exchange visitors are actually returning to their home country.
3. The availability of case studies of alternative delivery models being pursued in inner city areas (i.e., issue raised in context of "FMG-dependent" facilities).
4. Information on FMG distribution in rural areas.

3. GME Programs and Financing

a. A number of those consulted generally favored the use of the reimbursement system to influence GME. However, there was not a clear consensus as to the mechanism for policy and what aspect of GME should be "protected" if payments were reduced.

b. Medicare support of GME was cited as a vulnerable area for future Federal government budget savings. Since the government continually questions how it can purchase medical services more prudently, it is looking more systematically at areas of cross-subsidy (e.g., use of the Medicare Trust Fund).

c. Different views existed as to the appropriateness of increasing the use of Medicare conditions of participation as a tool for government involvement in GME and other health policy areas. There was interest expressed in possibly establishing specific conditions for receipt of payment.

d. From a Congressional point of view, the support of GME through Medicare assumes a higher priority than addressing how GME will be paid through the private sector.

e. With regard to any "earmarking" of support or reductions in payment, there was no clear consensus regarding adopting an across-the-board approach on adopting a selective approach (e.g., one based on certain program quality criteria).

It should be noted that at least one or more of the persons consulted raised the following concerns and points during the consultations.

1. COGME should not become entangled in a major modeling effort; however, this was not an argument for ignorance (i.e., better health manpower data should still be sought).

2. It is important to look at GME within an economic environment where both public and private insurance are interested in keeping people out of hospitals to the extent possible.

3. Does the government's subsidy of GME affect the number of physicians receiving GME? If not, why the subsidy? If so, are the subsidies justified? Is there a role for government in the issue of physician manpower supply?

4. Where public policies are adopted to encourage increases in primary care manpower, should the policies be directed at categorical programs (e.g., Title 7) or through medicare or both?

5. If a more restrictive policy is adopted concerning FMGs, where should the line be drawn (i.e., should the U.S. still have some policies designed to encourage foreigners to come to this country; and, if so, for what purpose?)?

6. New aporoaches are needed in public policy to achieve increased representation of minorities among physicians.

Finally, it is important to note that the consultations were also helpful in identifying a number of ongoing analytic efforts and inquiries for followup by COGME staff.

U.S. Government Printing Office : 1999 - 551-493/80133

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